The Baillie Lectures

ON

FRAGMENTS OF PATHOLOGY AND THERAPEUTICS.

Delivered at St. George's Hospital on May 11th, 18th, and 25th, 1899,

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LECTURE II.[1]

Delivered on May 18th, 1899.

SOME REMARKS CONCERNING DIET.

GENTLEMEN,—Water forms the larger part of the human body; it constitutes three-fourths of the solid textures and four-fifths of the blood. It is the indispensable vehicle of all the secretions and of all the materials which are introduced as food. We can get on better without meat than without drink. The want of the solids is mere deprivation; the want of the liquid is deprivation and something more, for the lack of water hinders the escape of what the water should carry off with it and the body becomes poisoned by its own products. But it is not my purpose to descant at large upon the physiology of water but only to touch upon one or two points of medical interest in relation to its action. Water is the universal solvent and the vehicle which carries out of the body all the soluble excreta and products of disease. When urea and the allied uræmic poisons accumulate in the body as the results of renal disease water is the surest of eliminants. It cannot leave the body as urine without taking with it more or less of these accumulations. I have satisfied myself that the amount of urea excreted in renal disease is increased by the drinking of water in proportion to the amount of diuresis occasioned. In some forms of chronic and permanent disease of the kidney, particularly of the granular kind, the urine is poor in quality but excessive in amount; the patient is habitually athirst and drinks abundantly of watery liquids. This is his salvation. If he is so ill-advised as to greatly reduce his drink the urine, too, will diminish and uræmia may declare itself by dangerous or fatal consequences. *Mutatis mutandis*, similar rules apply to diabetes. Water washes out the sugar and the special toxic material, be it acetone or only something resembling acetone, which the diabetic process engenders, and helps to keep the system clear of the poison. Conversely the stinting of water adds to the danger of the disease. Large drinking of water may stave off for a time diabetic coma and the same deadly condition may be suspended by the copious introduction of an aqueous solution into the veins. I have seen consciousness completely, though temporarily, restored in this condition by this process. I once had the almost incredible amount of 456 ounces (more than 22 imperial pints) thus injected in two operations within the space of 32 hours.[2] The patient before the first was in a state of coma resembling profound sleep, from which she could be roused for a moment, but not so as to answer intelligently, at once relapsing into insensibility. After the injection of 106 ounces she recovered complete consciousness, but only retained it for 25 minutes. After the subsequent injection of 350 ounces she recovered consciousness, though not immediately, and retained it for about eight hours. It was observed that the urine passed after the operation no longer gave the acetone reaction which before was strongly declared. So much for water as a diabetic depurative.

Gout is another disorder in which it is probable that the essential poison, be it what it may, finds an exit with the urine, and it is consistent both with reasoning and experience that this outgoing should be facilitated by water-drinking and diuresis.

> "Spare diet and spring water clear physicians hold are good;
> Who diets thus need never fear a fever in the blood."

It may be said in humble prose that Nature's remedies for gout are air, exercise, and water. Water, however invaluable, is inexpensive. Our own happy island has it in never-failing abundance. Not only of Skiddaw among our native hills can it be said—

> "..... he shrouds
> His ..... front among Atlantic clouds
> And pours forth streams more sweet than Castaly.

Water can be obtained in perfection without going to Germany for it. I hold with Naaman the Syrian in his preference for the waters of his own land. "Are not Abana and Pharpar, rivers of Damascus, better than all the waters of Israel?" The chief and often the only benefit which is derived from foreign or distant springs (I speak of the waters *per se*, not of the collateral advantages of German bands, or golf, as the case may be) is imparted by the water, using the term chemically, rather than by the various minerals which the accidents of geology rather than any therapeutical purpose have caused to be mingled with it. These admixtures may do good or may do harm, according to the state of the patient and the judgment of the medical adviser, but the *water* is generally of service; and it may often be a point of wisdom to drink this in its purity rather than sophisticated whether by nature or art.

Next to the effects of drinking much water something may be said as to the results of drinking little. There are many conditions of disease in which the body becomes water-logged, loaded with the products of dropsy which, whatever else they may contain, consist chiefly of water. If there is too much water in the tissues or serous cavities and all this comes, directly or indirectly, from what is swallowed a very obvious suggestion is the cutting off of the supply. Some cavities in some conditions, notably the peritoneum in hepatic ascites, hold their contents so tenaciously that it is seldom that any impression can be made upon them by dry diet. A remarkable exception was afforded by the case of a boy, seven years of age,[3] who was under my care in St. George's Hospital. He had hypertrophic cirrhosis, presumably produced by alcohol, and ascites nearly to bursting. He was tapped 10 times in the course of 55 days with the total removal of 958 ounces, or over 47 imperial pints. The hopelessness and the inevitable end of this continued tapping suggested treatment by dehydration. The drink was limited, at its minimum to six ounces of water, a few small pieces of ice, and one and a half ounces of brandy in the 24 hours. This was completely successful. The cure of the dropsy was immediate, complete, and final. He left the hospital without a trace. At his death two years afterwards from an abscess of the brain the peritoneal cavity was found to have been obliterated by delicate adhesions. The liver was markedly cirrhotic. I have tried the same plan in other cases of hepatic ascites, chiefly in adults, with but limited success. Renal dropsy may be more amenable than hepatic but cannot be subjected without risk to a method of treatment which invites uræmia. Cardiac dropsy may be thus treated without danger and often with much advantage, whether the accumulation be in the cellular tissue or in the serous cavities. I have even come across one instance in which a large diminution in the bulk of a great ovarian cyst occurred as the result of a course of dietetic dehydration. I presume, however, that in these days of safe ovariotomy the surgical method of dealing with these cysts will be preferred to all others. Limitation of drink in some forms of dropsy is remarkably well borne; the patient probably utilises his own accumulations and feeds upon himself. I have reduced the daily drink to minima varying from 16 ounces to two ounces in the 24 hours. Patients complain but little of thirst, and the tongue has usually remained moist. When it became dry, which was seldom, the regimen was always discontinued or relaxed. One of the results of the restriction of fluid is loss of flesh. This is no doubt due to the failure of saliva and of appetite and inability to take the habitual amount of food. There is a common belief that water is fattening. This, taken strictly, is nothing less than an absurdity. You cannot feed capons so. Water cannot give what it does not contain. If cattle could be made fat on water farming would be a more

[1] Lecture I. was published in THE LANCET of June 10th, 1899.
[2] Transactions of the Clinical Society of London, vol. xxiii., p. 130.
[3] This case is recorded in Allbutt's System of Medicine, vol. v., p. 691.

lucrative occupation than at present it seems to be. But though water is not fattening the want of it is thinning, for the drought interferes with the appetite and with the solution and assimilation of food. But let not the corpulent too readily resort to a dry diet as a means of reducing their bulk. To limit the water is to limit irrigation and excretion and to favour the accumulation of waste products such as tend to produce gout and other disorders. Treatment by dehydration must therefore be cautiously exercised and never long continued.

ON CONCENTRATED FOODS.

I might make a short chapter like that "Concerning Snakes in Iceland" and say that there are no such things. For "human nature's daily food" are required certain weights of nitrogen, carbon, oxygen, and hydrogen which are ultimate forms of matter and not capable of concentration or further reduction to essential principles. An ox cannot be got into a teacup by any other process than by leaving the greater part of the animal outside. The stomach of the average man demands every 24 hours 21 grammes of nitrogen, or about three-quarters of an ounce; 307 grammes of carbon, or about 11 ounces; 12 grammes of hydrogen, not quite half an ounce; besides sulphur and salts.[4] This is required to make up for the waste—to restore what leaves his body in various shapes. Three-quarters of a pound of carbon cannot be got into less than three-quarters of a pound. The nutritive effect cannot be separated from the bulk. The man must have his pound of flesh. He has to find fuel and to replace waste—charcoal to burn and nitrogen for repairs. If he does not get the necessary poundage he will dwindle, peak, and pine. His account of profit and loss must be adjusted according to weight. A drachm of Liebig's extract cannot supply more than a drachm. Quality cannot supply the place of quantity. The chief nourishers of life's feast are not creatin and creatinin but albumin, myosin, fat, gluten, starch, and sugar. None of these are capable of being administered otherwise than in their natural bodies and corporeal bulk. A sick person who is presented with Valentine's food in teaspoonfuls when he should have milk in pints has as much right to complain as I should have if I were to ask for a steak in the luncheon-room and be put off with a minute quantity of Liebig out of the shop. I might object that whatever the virtues of the Liebig it was not filling at the price. But we cannot reckon concentrated extracts as entirely useless, though they are not, properly speaking, food. They contain little or no albumin, some little, some none, no fat, and of the vegetable carbohydrates none. They contain salts and extractives which may be accessories to food but are not food itself. Perhaps they may be regarded as complementary or supplementary to the essentials of food and may in special circumstances have special use. I have long been in the habit of using them to help to make up for the loss by suppuration and so prevent or retard the consequent lardacity. So far as pus carries off the salts meat extracts cannot fail to supply the means of replacing them. These extras are, of course, only to be employed as superadditions to a diet abundant in other respects, not as substitutes for any part of it. They cannot take the place of nutriment in bulk. Beside their power of supplying salts and extractives which under special circumstances may be wanting it is supposed that they have some stimulant action. But the utility of concentrated foods has been greatly exaggerated in practice; they are additions to the essential diet, not substitutes for it. It is possible that a pennyworth of milk may be worth more to the patient than a shillingsworth of Liebig's extract.

DIET IN TYPHOID FEVER AND THE TYPHOID STATE.

To take the general condition first let me say what I mean by the "typhoid state." I mean the advanced condition of prostration, with a dry tongue, a rapid and failing pulse, and usually a high temperature. This is found in a typical state in the later stages of enteric fever, but also in typhus fever, pneumonia, and pyæmia, and often towards the close of phthisis and of many diseases, especially if they be accompanied with fever, which tend to death by exhaustion and cardiac failure. In these conditions, with a morbidly high temperature and failing powers of vitality, we have increased combustion of tissue, of which the high temperature is at once the result and the proof, and diminished ability to digest and assimilate. Where more food is wanted less is capable of being taken. For these two reasons the body wastes, much is taken out of it, and little is put in. It is so common for us to see these subjects of fever and prostration fed only upon liquids that it may not occur to us to question why they are thus restricted. They want more food than in health, for they are rapidly losing weight—why put them off with less? The dry tongue answers the question. The tongue is dry because no saliva is secreted. I long ago ascertained this by catheterising the salivary ducts. While in ordinary conditions the saliva would drip freely from the cannula with a dry tongue none could be obtained. Under advanced fever and extreme prostration the saliva fails to be secreted and the tongue becomes dry and encrusted. There is much reason to believe that what happens to the salivary glands happens also to other glandular structures concerned in digestion, especially those which produce the gastric juice. If this be so a dry tongue may be taken as a sign of loss of digestive power with which goes loss of appetite. Nature revolts against solids, nor could the stomach deal with them could they be swallowed. What has to be done under such circumstances is to give only liquids or food in solution, which is practically food upon which one part of the digestive process, and that probably the most difficult part, has been accomplished. Dissolved food can be absorbed and utilised with a minimum of digestive effort. If the stomach retains never so little of its function it may suffice to peptonise and adapt for absorption the food which is already dissolved. Perhaps much of it may be taken up by the vessels almost unaltered. This is the roundabout reason for what has long been taught by experience that when the tongue is dry the patient must live by suction.

Now let us consider for a moment of what the liquid food should consist. Milk is complete nutriment; it contains all the essentials. The casein supplies the nitrogenous part, the fat and sugar the carbon. Milk should always be given under such conditions as I am considering. Eggs, again, in their totality, yelks and whites together, may be regarded as complete nutriment. Out of one the entire animal is constructed—bone and fibre, muscle, fat, and nerve. Eggs in their entirety can sometimes be given beaten up with milk or otherwise, but the whole egg is less constantly available than the yelk with certain additions. The white is coagulated by alcohol and therefore cannot form part of the smooth, palatable, and digestible compound known to druggists as "mistura spiritus vini Gallici" and to the public as "egg-flip." This, as I shall presently show, is especially useful as complementary to beef-tea since it contains exactly what beef-tea wants. But I will put the "mistura" on the shelf for a moment while I say a word about beef-tea.

Beef-tea takes the next place to milk in the accepted dietary of the typhoid state. It is wholly of the nitrogenous class though not wholly or chiefly consisting of nitrogen. It contains the animal extracts of which Liebig's extract may be taken as the type. It contains, or ought to contain, gelatin abundantly; it contains no albumin in a liquid form, but should have a fine sediment into the composition of which coagulated albumin enters. It contains no fat or only a trace. Thus, beef-tea, though greatly superior to the concentrated extracts, is wanting in carbonaceous materials. It yields only as much of them as can be obtained by the breaking-up of the nitrogenous compounds. It is worth while to consider for a moment how much carbon or carbohydrate can be got in this way. A good deal but not enough. Whether we take the proteid bodies as represented by albumin, or gelatin which largely enters into beef-tea, both these nitrogenous bodies contain carbon in a much larger amount than nitrogen. Albumin contains 53 per cent. of carbon and 15 per cent. of nitrogen; gelatin contain 50 per cent. of carbon and 18 per cent. of nitrogen. We may put it roughly that the most nitrogenous components of our food contain three times as much carbon as nitrogen. The amount of carbohydrate which is wrapped up in albumin is manifested in diabetes when sugar is abundantly made out of a diet which consists as strictly as possible of foods of the nitrogenous class. In such a case the albumin is broken in two, one fragment being sugar, the other urea. I mention this to illustrate the fact that nitrogenous food necessarily includes much of the carbonaceous. But it does not include enough; for the maintenance of the body 14 times as much carbon is required as of nitrogen. To take albumin as the type of nitrogenous food this contains scarcely four times as much carbon as

[4] Sidney Martin: Chapter on Food in Stevenson and Murphy's Hygiene.

nitrogen. Thus a nitrogenous liquid, though it may supply some of the essential carbon, does not contain it in the needed proportion. Beef-tea therefore may comprise a part of the necessary diet, but is wanting in the class of food which should form its greatest bulk. The addition of bread, when admissible, helps to supply the deficiency by reason of the starch which it contains. But where it is necessary to keep strictly to liquids sugar is obviously indicated. Sugar is perfectly soluble, is easily absorbed and assimilated, and exactly supplies what beef-tea is wanting in. I have long made a habit of putting sugar into beef-tea and have often taken advantage of other liquids as vehicles for this carbohydrate. This is only what cooks do when they put sugar into soup. Be it remembered that the daily waste of carbon is 14 times as great as that of nitrogen and it is self-evident that the supply should be adjusted in some such proportion. On the same principle arrowroot, which consists almost purely of starch and is a convenient vehicle for sugar, is a valuable ally in the fight against exhaustion which has to be waged in the "typhoid state." Lastly, in extreme conditions it is advisable to peptonise the milk and beef-tea. In all but extreme conditions it is probable that though the stomach cannot furnish enough gastric juice to digest solids, yet it is able to do the little that is required to accomplish the digestion of liquids. In most states, therefore, the stomach may be left to do its own work in this respect. But when it is obvious that the powers of digestion and assimilation are giving way then the expedient of artificial digestion may be resorted to.

Passing now from the typhoid state in general to typhoid fever in particular little remains to be added. The ulceration of the bowels and the tendency of particles to lodge in and exaggerate the ulcers makes it essential that the liquidity of the food should be fully maintained, while the failure of nutrition makes it imperative that the liquid should be complete in all the elements of food. I would reiterate and enforce the addition of sugar and starch to the dietary when, as is customary, this is largely comprised of beaf-tea. The starch is best given as arrowroot which when properly made is practically liquid. Another important means of completing the diet in typhoid fever and the typhoid state is the egg-and-brandy mixture to which I have already adverted. This is made of the yelk only and so maintains a liquidity and smoothness which it would not have were the white included together with the brandy. The yelk of egg contains (beside a certain amount of nitrogenous matter) at least 30 per cent. of fat, and the fat is so disposed that it readily emulsifies and presents itself to the stomach in a form which is readily taken up even in advanced phases of gastric failure. The sugar in this mixture also counts for something. I am satisfied that in conditions where life is threatened by failure of nutrition these additions of sugar, starch, and fat to a dietary which is often too simply nitrogenous are of vital importance.

DIET IN INTESTINAL OBSTRUCTION.

I may touch upon another variety of disease in which a peculiar diet may be employed with advantage. I refer to chronic obstruction of the bowel, impassable and irremediable. Much of the distress of this condition, the abdominal distension and the stercoraceous vomiting, depend upon the accumulation of fæces in the intestines and the necessity of getting rid of the collection upwards instead of downwards. If there were no fæces, if the food could be wholly absorbed and leave no residuum, the sufferings of the patient would be greatly mitigated and he might live long in comparative ease without the necessity of alvine evacuation. Fæces mainly consist of the undissolved and unabsorbed residuum of food. A small portion is contributed by a special secretion from the intestinal glands, but this is little in bulk, however obtrusive in quality. The great mass of fæces is unconvertible and discarded food. The problem is to reduce this to a minimum—to give food, and of that a sufficiency, of such a sort that it leaves no solid remnant in the bowel. Now let us consider how that can be done. In the first place, all solids must be interdicted and only liquids given. Every kind of solid food, excepting such as, like sugar, are capable of complete solution, contributes to fæces by its insoluble residuum—vegetable food copiously, animal food in less bulk. Of liquids only those should be given which cannot coagulate or solidify within the alimentary canal and which carry no solid particles in suspension. Milk as such is obviously not admissible, for it abounds in casein which coagulates within the body and, as a matter of experience, gives rise to bulky excrement. But the whey—milk from which the casein has been removed—is open to no such objection. It contains nothing that can become solid in the bowel and presumably is capable of being absorbed in its entirety. It contains the fat, the sugar, and the salts—the fat as a fine emulsion and the sugar and the salts in complete solution. All are important to nutrition and presumably admit of complete absorption. Whey, then may be given without stint. Coming next to beef-tea this in its ordinary state contains much solid matter in the shape of the well-known brown sediment. This must be completely removed, which can easily be done either by passing the liquid through filtering paper or by letting it stand for some hours in a tall vessel and pouring off for use only the clear supernatant. The clear fluid obtained by one of these methods contains nothing that could under any circumstances solidify within the bowel. It contains nourishment as gelatin and the soluble extracts of meat. Sugar may be added or may be given otherwise; this is wholly soluble and, as I have already shown, is of especial value. Much the same may be said of starch, which in the form of arrowroot is probably capable of complete solution. Alcohol, as permanently liquid, is unobjectionable, and it may be added that it is generally desirable as a means of adding to a diet which is not too varied or satisfying. Any clear alcoholic drink may be employed, whether beer, wine, or spirit. The last is a convenient vehicle for sugar. Malt liquor of the higher quality contains in solution a considerable quantity of gluten which cannot fail to contribute usefully to the *menu*. I have had considerable experience of this dietary in cases of impassable obstruction, mostly, or I think I may say entirely, from malignant disease, and can testify to the relief it gives. The stercoraceous vomiting ceases for a time, the abdomen becomes less distended, and a condition of comfort results which, though only temporary, is worth securing. After a time the vomiting returns and the case progresses to the inevitable end. But that end is postponed, which is all that is possible under the circumstances.

LECTURE III.

Delivered on May 25th, 1899.

ON THE SUPERFICIAL TREATMENT OF DEEP DISEASE.

GENTLEMEN,—As long ago as in the year 1868[5] I ventured to call in question the then general practice of regarding most organic diseases as accessible from the surface and applying agents commonly of an irritating quality to the skin which lay over the organ supposed to be affected though more often than not it had no direct connexion with it. The paper to which I refer led to an animated discussion and was followed by considerable modification, in St. George's Hospital at least, of the practices which had been impugned. These practices were mostly survivals of the old humoral pathology, a system which had enough truth in it to shelter a great deal of error. With this system was a vague notion, which, if never exactly formulated, was certainly acted on, that each disease had its essence or separate entity which could move at its own sweet will from place to place and could be induced by the attraction of a blister or the more overpowering solicitation of the actual cautery, to quit a vital organ and fix upon a comparatively unimportant surface. One condition, however, appeared to be necessary: the inviting skin must be as near as possible to the suffering organ measured across country rather than by the circuitous routes of vessels and nerves. Much of this still survives; practices long outlive the theories on which they were based. It is still by no means unknown for leeches or cupping-glasses to be applied to surfaces which have no vascular connexion with the organ it is desired to influence excepting round by the heart, and for the superjacent skin to be punished for the errors of viscera which are structurally unconnected with it. I speak of the deep-seated disorders which come under the care of the physician. Superficial disturbances may call for superficial treatment. Local inflammations of skin and cellular tissue may be beneficially treated by superficial applications, but the case is far otherwise when we have to deal with the lung, the liver, or the kidney. Because surgeons found a suppurative condition under the skin to be benefited by poulticing physicians used to apply relays of

[5] Counter Irritation, St. George's Hospital Reports, vol. iii.; reprinted in Occasional Papers on Medical Subjects, 1896.

poultices to the chest over a pneumonic lung and valued themselves in being up to date and rather enlightened than not. The practice, as I have had occasional opportunity of observing, still lingers in remote places. Let us consider what a poultice is. It is something wet and warm which makes the surface to which it is applied sodden and soft and facilitates the efforts of the pus corpuscles to break through the walls of their prison house. In dealing with a subcutaneous focus of inflammation this may do good. But how about the lung? The wet cannot reach it; the linseed cannot project its salutary moisture across the pleural cavity. The warmth, if warmth be wanted, can be more conveniently applied. Whatever sense there may be in keeping the chest warm by means of coverings which are light, dry, and not such as to require frequent change, I can discern only the want of sense in embarrassing the patient with sloppy nuisances which interfere with his comfort, exhaust him by frequent lifting and changing, and the special effect of which cannot possibly reach the organ they are designed to benefit. For my part I always recommend a light jacket of cotton-wool as the best application to the chest in pneumonia—not that this does more good than any other light and warm clothing, but that it gives satisfaction as something special to the disease and keeps off things that might be more open to objection. No doubt practitioners of medicine have been led to the misuse of poultices by an analogy the fallacy of which is obvious. A poultice does good to a superficial abscess: therefore it is good for inflammation in general and cannot fail to benefit a hepatised lung or a region of bronchitis.

Local bleeding often affords another instance of the want of thought with which local remedies are aimed at disorders inaccessible to them. The hypochondrium has been leeched to deplete the liver, the chest leeched or cupped to deplete the lung, the scalp or the nape of the neck leeched or cupped to drain the brain, the loins cupped to influence the kidney, and the scrotum leeched to relieve the testicle. What can be more unreasonable when one comes to think of it than leeching the hypochondrium to deplete the liver seeing that there is no direct vascular connexion between the two? There is no communication between the superficial vessels of the hypochondrium and the vessels of the organ beneath excepting what is trifling and roundabout. It is easy at a post-mortem examination to place the hand between the wall of the abdomen and the front of the liver and realise by touch the extent of the separation between them. The hepatic artery and the portal vein which supply the liver may be regarded as practically independent of the vessels of the abdominal wall. Similarly with regard to the testicle: the scrotum derives its blood from the femoral and iliac arteries, the testicle from the aorta. With regard to some of these practices there is enough excuse to found an argument upon in a debating society, but with none is there enough to demonstrate their utility. It is true that certain minute vessels make a connexion between the capsule of the kidney and the lumbar structures, but it is equally true that so overwhelming a proportion of the renal blood is drawn by the renal artery directly from the aorta, that any attempt to lessen this supply by drawing upon the circulation of the skin would be about as rational as trying to lower the water at London Bridge by taking some out of the Serpentine. Similar reasoning may apply to the brain and the scalp. There are some communications, but scarcely enough to warrant the attempt to relieve the one by way of the other. Yet how often have we seen the temples leeched at the expense of the external carotid when the territory of the internal carotid is in question. If we wish to deplete the lung, the liver, or the brain it must be by way of the general circulation whether by venesection or otherwise. Superficial measures are suited to superficial disorders. Their obvious utility in such circumstances has done much to magnify their efficacy and to promote their employment where they can but be useless. In regard to serous cavities and joints these have their outer walls, for the most part, connected by numerous anastomoses with the covering skin. The outer layers of pleura and pericardium and the capsules of the knee and other joints can be depleted from without to their frequent advantage; but not so can the deeper and unconnected structures be influenced. The relief in leeching the chest for pleurisy or pericarditis is often obvious; equally so is the withdrawal of serum by vesication from a rheumatic joint. But there must be a community of circulation between the surface operated on and the structure aimed at. But far beyond local blood-letting the great abuse and opprobrium of superficial therapeutics has been what is called "counter-irritation." We know of "irritation," a thing to be generally avoided, but is there such a thing as "*counter*-irritation"? Can we do good to one part by doing harm to another? Can we fetch out the virus of a deep disease by opposing to it superficial attractions? The old counter-irritators either did not know their anatomy or did not regard it; between the skin and the lung is a great gulf fixed, nor is the base of the brain within obvious reach of the nape of the neck.

It is not my purpose now to deal at length with a subject which I have more fully discussed elsewhere, but I may briefly advert to some of the practices which are more honoured in the breach than the observance. The actual cautery to the epigastrium for ulcer of the stomach is one of them. I have been told by a physician who witnessed it in bygone days and in a foreign country that one mode of treating cholera was to apply suddenly to the abdomen an instrument like a spade which had just been immersed in scalding water. If the patient yelled the restoration of his voice was regarded as of good omen. I remember the time when a person with a cerebral lesion, whether meningitis, apoplexy, or tumour, was almost sure to be blistered on the nape of the neck and was exposed to the chance of having the sore kept open by means of savine ointment. One physician, by way of being in advance of his time, treated diabetes in this way, for, thought he, diabetes is a disease of the medulla oblongata and the nearest skin is that of the neck. It will be observed that in the theory which inspired this treatment of cerebral disease, or disease supposed to be cerebral, there is no consideration of the course of vessels or nerves or of the interposition of cavities. The vulgar belief in external applications is displayed in the popularity of many nostrums. In old days there was St. John Long's liniment as a cure for phthisis, an abominable mixture of turpentine and acetic acid which we could wish had been freely applied to the quack who invented it. More recently orthodox practitioners have put irritants to the chest for tubercle of the lung. I remember being taken about 40 years ago by an eminent and honoured surgeon to see a case of phthisis. We made a division of labour: I localised the tubercle in the apices, and he with the most conscientious care cut two blisters exactly to fit the lesions. I stood by consenting. We acted according to our lights. I suppose we had a vague notion of drawing something out or setting up a superficial disorder which should compete with and detract from the deeper. But now the bacillus has to be reckoned with. Neither can this make its way out by the surface nor can its multiplication in the lung be supposed to be affected by anything we can do to the skin. Similar criticisms apply to the painting of the surface with iodine, which is not only applied uselessly in phthisis but in many other conditions. Iodine upon the cuticle is, I believe, not absorbed, at least I have not been able to find any trace in the urine when it has been thus applied. I am a total disbeliever in the sorbefacient action of iodine when used externally whatever it may do when introduced internally. I believe that the painting of enlarged glands is always useless and generally injurious for it tends to set up irritation which is of all things to be avoided. I have already alluded to the utility of vesication when applied within the vascular territory of a serous effusion. Fluid within the pleura, the pericardium, or the knee may be thus removed or lessened; but not by iodine. I have more than once experimented on two knees belonging to the same person similarly affected with serous effusion. One has been repeatedly blistered and the other painted with iodine; the blistered joint has always shown the greater diminution, the subject of the iodine none or not more than might be attributed to nature. I can recall the time when everyone with bronchitis had his chest rubbed with some irritant, generally ammoniacal. If we wish to apply local remedies to the bronchial tubes it can only be by inhalation; placed upon the skin we fail to discern any mode by which their influence can be projected upon the remote and disconnected mucous membrane. Superstitions die hard. Not long ago an eminent physician was called to a distant city to see a child with double pneumonia. Two blisters, together covering a large part of the chest, were comprised in the treatment. Let us hope that the rest of it was more rational and more comforting. The public naturally put faith in local treatment. If the disease can be localised what can be more

to the purpose than something which appeals to the locality? The doctor, like the application, is "on the spot"; he knows both where the disease is and what will do it good. The blister may irritate the body but it soothes the soul.

Let us act rationally when we can. It is perfectly true that we cannot always be rational, sometimes we must be empirical; we may not know in the least how a thing acts but we may be so certain that it does act that we ask no more; this is the case with colchicum in gout and iodide of potassium in syphilis. But when we propose to ourselves to establish some mode of action let us be sure that we are guided by sound considerations. If we wish to draw blood from an organ by local depletion let us make sure that the vessels upon which we operate have some local connexion with the organ in question. If we propose to relieve by vesication let the serum be taken from capillaries which are in communication with those of the suffering part. If we propose to employ counter-irritation let us say to ourselves that irritation is one thing and counter-irritation is another. We know that we can irritate, but as to counter-irritation the sceptical may entertain some doubt and those who are content with one affliction may hesitate about the desirability of adding another.

THE DIAGNOSIS OF CERTAIN NOTIFIABLE DISEASES.[1]

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THE accurate and early diagnosis of infective disease always has been, and must necessarily be, a matter of anxious consideration in general practice, if only in view of the importance of early isolation; but in these days of compulsory notification it assumes an exaggerated importance. I shall therefore attempt to the best of my ability to give a brief summary of the relative value of the various symptoms in the diagnosis of some of the infectious fevers with which I have become impressed as the result of 12 years' daily observation. It would obviously be impossible within the limits of a short paper to deal individually with each of the diseases which are notifiable in London; moreover, my object is to introduce what should prove to the members of this society a fertile field for discussion rather than to weary them with a too lengthy dissertation. I propose, therefore, to confine my remarks to the most common, and consequently the most important, members of the group, and for which, moreover, in London the Legislature provides the necessary accommodation—viz., scarlet fever, diphtheria, enteric fever, and small-pox—although the discussion of their differential diagnoses involves a brief allusion to the characteristics of certain other diseases with which they are liable to be confounded.

Scarlet fever.—The points on which the diagnosis of scarlet fever rests are the following. 1. *The length of incubation* when determinable, which in the large proportion of cases is three days or a little less. It is not often less than 48 hours, and very rarely more than four days, though exceptional cases are on record in which it has been practically proved to have been as long as six days. 2. *The fact that the attack is usually ushered in with a combination of sore-throat, headache, and vomiting.* Although coupled of course with other general signs of febrile invasion these three symptoms stand out as pre-eminently suggestive of scarlet fever. The vomiting is often absent in adults, as is the headache, at any rate as an ascertainable fact, in children. The importance of vomiting as an early indication of scarlet fever in children is confirmed by the fact that in a series of 1000 cases in which the history of onset was carefully inquired into vomiting was noted in no less than 80 per cent. of them, and three-fourths of these patients were children. The only other specific fever which shows anything like the same incidence of vomiting is small-pox. 3. *The association of a characteristic puncto-erythematous rash and faucial inflammation with a characteristic appearance of the tongue*, dependent on its becoming rapidly denuded of its surface epithelium and so coming to resemble a ripe succulent strawberry. The process of denudation may be often recognised as early as on the second day of fever by the clean red appearance of the tip and edges in contrast with the thick coat of fur which usually covers the rest of the surface. From the edges the stripping process rapidly spreads towards the centre, so that by the third or fourth day of the attack the tongue presents the raw denuded appearance which is so characteristic of scarlet fever. It must be remembered, however, that the completeness with which the tongue peels is proportionate to the degree of inflammatory injection of the faucial and buccal mucous membrane, just as the amount of peeling of the skin is determined by the intensity and persistence of the antecedent eruption. Consequently, in the diagnosis of an attack attended with but slight sore throat we are unable to expect much assistance from the distinctive character of the tongue; and it must be confessed that this is very often the kind of case as to the nature of which there may be considerable doubt. 4. *A pulse which at an early stage of the attack is often characterised by undue rapidity.* A pulse of from 140 to 160 during the first 36 hours in a child of five years of age should give rise to no anxiety. Towards the end of the second day, even though the temperature may have risen higher, it usually becomes less rapid and assumes a normal febrile relation. It should be remembered, however, that extreme rapidity of pulse is often an early symptom in pneumonia as well. 5. *A temperature the course of which in simple scarlet fever usually conforms to a well-recognised type.* The pyrexia, lasting usually from five to seven days, is of a markedly pyramidal shape when charted, with the apex, representing the acme of the fever, either on the third or fourth night. Defervescence takes place gradually by lysis and is usually spread over four days. In view of the misleading statements which are so often made in text-books it cannot be too strongly insisted upon that a true temperature crisis in scarlet fever is excessively rare. In the septic form of attack characterised by destructive ulceration of the fauces the temperature, instead of falling gradually from the third or fourth night, is continued at the same level and assumes a remittent or pyæmic character. In the toxic or so-called "malignant" type of attack, which, happily, in London at the present day is very rarely seen, the temperature remains at a high level, usually between 104° and 106° F. until death, which commonly takes place on the fourth or fifth day. 6. *The occurrence of characteristic desquamation.* I think the statement is justified that peeling of some degree takes place in all cases which have presented a distinct eruption—at any rate, a punctiform eruption. It may, however, require very careful and minute examination to recognise its presence, particularly in infants and in adults who are endowed with a greasy skin, such as is often seen in young adults the subjects of acne punctata. In an infant so slight and transient may be the peeling that it can only be detected by the nurse in the form of delicate rolls of cuticle which are removed by the towel when the child is being dried after its bath. For this reason the peeling may readily escape observation. To a careful observer the first sign of peeling may be apparent as soon as the second or third day of the eruption in the form of a delicate powdering on the surface of the cheek, which is at that time vividly injected. The result is an appearance of powder and rouge which is strongly suggestive of the gentle art of self-adornment, although it undoubtedly enhances the natural beauty of a beautiful child. In those with a very delicate skin the complexion suggests rather the bloom on a ripe peach. A vividly flushed cheek limited in the same manner by the naso-labial folds is seen in many other acute diseases, notably in acute pneumonia, and is not therefore in itself distinctive, but it is the delicate powdering of the flushed surface which is so eminently suggestive of scarlet fever. Towards the end of the week, before the rash has quite faded, peeling is usually apparent on the neck and on the upper part of the chest, whence it spreads downwards during the course of the ensuing week. On parts of the surface where the skin is normally soft and smooth, as, for instance, the chest, the abdomen, the groins, the inner aspect of the arms, and the thighs, the cuticle separates in the form of delicate shreds or scales. It is more especially in these regions that the desquamation presents certain characteristics which are very distinctive of

[1] A paper read before the South-West London Medical Society on May 10th, 1899.

the disease. At the earliest stage as soon as the tension of the skin associated with the inflammatory hyperæmia of the rash has subsided, on careful inspection the most superficial cuticular layer will be found to present a number of small perforations of about the size of a pin's head or larger which give to it a "worm-eaten" appearance, each of the "pinholes" corresponding to one of the finely papular constituents of the recent eruption of which the delicate investing layer has become rubbed off. During the next few days each of these little "pinholes" or rings becomes gradually larger by centrifugal extension until its periphery becomes merged with those which have spread from other and neighbouring centres. As a result anything suggesting this ring-like arrangement then becomes indistinguishable and more or less triangular islets or shreds of cuticle remain, which are ultimately shed, thereby completing the desquamative process so far as that portion of the surface in concerned. The early stage of the peeling, then, is characterised by this "pinhole" appearance of the cuticle and the later stage by these "islets" or irregular shreds of epidermis which are the last to separate. This peculiarity yields trustworthy evidence as to the peeling being scarlatinal; and, moreover, according to its progress, and the parts of the surface which have become invaded, valuable indications may be derived as to the length of time which has elapsed since the commencement of the attack. 7. Lastly, from the confirmatory evidence which is often afforded by *the supervention of one of the well-recognised complications of scarlet fever*, chief of which are, of course, otorrhœa, cervical adenitis, nephritis, and rheumatism. There are certain facts connected with the appearance of these complications which are well worth remembering when one is concerned with their value as confirmatory evidence of scarlet fever. The otorrhœa, for instance, is practically limited to young children, its percentage incidence falling progressively from 18·5 in the first quinquennium of life to 0·7 in the fourth quinquennium. The cervical adenitis shows a progressive fall from 11·7 in the first quinquennium to 1·4 in the fourth Renal inflammation, as evidenced by either acute nephritis or simple albuminuria, remains pretty constant at all ages, though definite acute nephritis is relatively rare after 15 years of age. Scarlatinal rheumatism, on the other hand becomes more frequent as age advances, its incidence rising from 0·4 per cent. under five years to 13·6 per cent. in persons aged 20 years and upwards. Another striking point in connexion with the rheumatism is a remarkable constancy in the time of its appearance—viz., almost invariably the fifth, sixth, or seventh day of the attack, at a time when the rash and fever in simple scarlet fever are just disappearing.

These, then, are the main indications on which we rely for the diagnosis of scarlet fever. A well-developed attack should present no difficulty, and there is really no excuse for mistaking it for any other disease. But the case may be very different. It is the ill-developed or negative attacks which so often give rise to very great difficulty and constitute the *bête noire* of the general practitioner who is but too often expected to be endowed with intuitive perception—the kind of attack which causes one to ask oneself, "Is there sufficient evidence in this case to justify the diagnosis of scarlet fever?" "Must I insist upon a prolonged and often, both to the patient and his friends, an irksome period of isolation which may possibly be, after all, unnecessary?" Or, on the other hand, "Am I justified in letting this patient remain where he is with the ultimate possibility of disaster?" It must be confessed that in some cases the question is unanswerable by any human observer, but I think that if cases be carefully tested by the criteria which I have enumerated their number will not be very considerable.

Now, turning to the differential diagnosis of scarlet fever it may, I think, be fairly stated that there are two classes of ailments with which scarlet fever is most liable to be confounded. First, those in which sore-throat is the prominent feature—viz., simple tonsillitis, diphtheria, and certain cases of influenza; and secondly, those which are attended with a diffused red exanthem—viz., measles, rötheln, and a condition resulting from the administration of certain drugs. Now the differentiation of simple tonsillitis from mild scarlet fever may be an extremely difficult thing, especially in adults, in whom the sore-throat is often accompanied by a distinct rosy efflorescence on the skin. This, however, is usually limited to the chest and the abdomen, perhaps invading the arms as well; but it is rarely seen on the legs. It lacks the punctate character which is so distinctive of the scarlatinal eruption, being represented by a simple erythematous flush, which, though often vivid at an early stage, rarely persists for more than from 24 to 36 hours and leaves no staining of the skin behind. There is probably an absence of prodromal vomiting and the tongue retains the character which is almost invariably associated with tonsillitis. It is pale and flabby in appearance and is coated with dirty-white pasty fur, so different to the rapidly cleaning tongue of scarlet fever. This distinction is most important, as there is no form of sore-throat other than that associated with scarlet fever which is attended with a clean, much less a raw, tongue. Frequent careful and minute inspection of the skin will fail to reveal any indication of peeling, except perhaps on that portion of the neck which has been previously covered with a poultice or a hot fomentation, but even here there is an absence of any "pinhole" arrangement. In an adult or older child the occurrence of rheumatic pains and tenderness in any of the joints, especially in the wrists or the metacarpo-phalangeal joints from five to seven days after the onset of a febrile sore-throat of doubtful nature, is strongly indicative of the case being one of scarlet fever, and the same inference attaches to the appearance of otorrhœa in a young child, though not perhaps appearing until two or three weeks later. Simple albuminuria is as common during the febrile stage of simple tonsillitis as it is in scarlet fever, but the supervention of either simple albuminuria or acute nephritis during the second, third, or fourth week is strongly in favour of the latter. Simple tonsillitis but very rarely occurs in young children. In them a definite inflammation of the faucial structures, except as part of a general catarrh, almost invariably means one of two diseases—viz., scarlet fever or diphtheria.

The differentiation of scarlet fever from diphtheria is often confused owing to the fact not being sufficiently well recognised that an exudation is occasionally present on the tonsils in scarlet fever, which is certainly not diphtheritic. The exudation of scarlet fever, which was, I think, first described by Professor Henoch under the name of "scharlach nekrose," is only found in cases attended with severe faucial inflammation. It is limited to one or both tonsils and does not encroach either on the palate or the uvula. It is more cheesy and friable in consistence and never presents the glistening or fibrous appearance which is so often seen in true diphtheria. Further and more general points in the differentiation between scarlet fever and faucial diphtheria will be referred to when dealing with the latter disease.

The fact that tonsillar or faucial inflammation is occasionally the most obvious manifestation of certain attacks of influenza is responsible for its being sometimes mistaken for scarlet fever, and it is probably within the experience of many practitioners that a whole series of attacks of this protean disease at one time or another have conformed to this type and so contributed to the confusion, at any rate at an early period of the epidemic. The absence of a punctiform eruption and of early cleaning of the tongue, the irregularity of the temperature, the intensity of the prostration, and the relative immunity of young children are points which tend to exclude scarlet fever.

Now, in respect to the eruptive diseases which most frequently simulate scarlet fever—viz., measles and rötheln (or German measles)—the latter is the one which is most often a source of difficulty, the reason being that both rash and sore-throat are normal accompaniments of rötheln. The differentiation from scarlet fever is sometimes exceedingly difficult. The points on which reliance must be placed are the following: 1. A longer period of incubation, usually 10 days or rather more. 2. An absence of prodromal vomiting and actual pain in swallowing. 3. The rash is usually the first sign, indeed, it may be the only sign, of illness. 4. The temperature is frequently normal throughout and is rarely raised for more than from 24 to 48 hours. 5. The eruption is usually measly at an early stage, though the spots are usually pinker, smaller, and more discrete than in true measles. At a later stage, usually by the second day, the eruption tends to become erythematous on the trunk, when no suggestion of individual spots can be made out, and this is the time when its likeness to scarlet fever is most confusing. Unlike scarlet fever, however, definite spots are to be seen on the face in most cases, though rarely visible there for more than from 36 to 48 hours. The eruption generally will in all probability have disappeared, even from the legs, by the end of

the third day, though a very faint mottling may still be just visible in a good light on the extremities. 6. Nothing more than slight redness and catarrh will be found in the fauces, and it is not uncommon for the catarrh to affect the naso-lacrymal mucous membrane to a slight extent. 7. The tongue never becomes unduly clean, much less raw, and though slight and transient peeling, perhaps more pronounced than in the average case of measles, may be seen on the trunk and limbs it is never of the "pinhole" variety and stops short of the palms and soles. 8. The most striking distinction which rötheln commonly exhibits, as opposed to scarlet fever, is a tender enlargement of the concatenate chain of glands in the posterior cervical region or of those lying over the mastoid bones. They may be slightly enlarged in scarlet fever, it is true, but never, I believe, tender; whereas in rötheln it is not uncommon for an adult to voluntarily complain of tenderness in this region even for a day or two before the rash comes out. This complaint of tenderness on the part of the patient is most important.

Now, as regards true measles the points of distinction between it and scarlet fever are so well recognised that I hesitate to reiterate them in detail. The points, however, which present themselves prominently to one's mind are the following. 1. The comparatively long incubation of measles. 2. The presence of definite lacrymal, nasal, and respiratory catarrh, usually for two or three days before the rash appears giving the patient an aspect of unalloyed misery. 3. The temporary decline of temperature just before the rash comes out and the re-access of pyrexia on its appearance. 4. The spotty character of the eruption as opposed to the minute punctation and confluent flush of that of scarlet fever—the fact that the spots usually are first discernible at the sides of the forehead and behind the ears at the margin of the hairy scalp and that they definitely invade the face, and especially the region round the mouth, which in scarlet fever remains pale and unaffected. 5. The fact that there is no definite inflammation of the faucial structures except as a part of a general catarrhal affection of the mucous surfaces, and certainly no ulceration of the tonsils with enlargement of the subjacent lymphatic glands. 6. The liability to the supervention of bronchial or pulmonary inflammation and the absence alike of those complications and the subsequent desquamation which are so characteristic of scarlet fever. 7. Lastly, the fact that the temperature in uncomplicated attacks falls suddenly by crisis within 36 hours of the appearance of the eruption, instead of declining gradually hand-in-hand with it, as is the rule in scarlet fever.

These are the points which usually suffice to make the distinction easy. When we are confronted with a case which gives rise to any difficulty it is usually in respect to a case of scarlet fever which presents characters suggestive of measles, rather than a case of measles simulating the appearance of scarlet fever. Cases of scarlet fever do sometimes occur in which there is an amount of conjunctival injection with obvious lacrymation at an early stage which are not unlike measles, and the rash in parts may be of a blotchy and decidedly morbilliform character which further tends to heighten the similarity. The conjunctival injection, however, passes off after the first 24 hours and does not extend to the adjacent mucous surfaces, while the measly character of the rash is usually confined to the limbs and never invades the face or circum-oral region.

Now, of the drugs which are liable in certain persons to set up an exanthem which may simulate the eruption of scarlet fever the only ones which have fallen within my own experience are copaiba, salicylic acid, antipyrin, belladonna, and iodoform. The rashes resulting from their administration have been in each case erythematous, though in the case of copaiba and belladonna there may be a distinct suggestion of punctation. The general aspect of the case, however, coupled with careful inquiry into the history and the absence of any other signs of scarlet fever, should make its recognition pretty certain.

Diphtheria.—In the diagnosis of diphtheria the fact has been recognised for some years that the presence of exudation or false membrane alone cannot be regarded as the infallible criterion of diphtheria as was taught by Bretonneau in the year 1826 and has been almost universally accepted until quite recently. It is now customary to regard the presence or absence of the Klebs-Löffler bacillus as sufficient to determine the diagnosis. Although in the large majority of cases this relation holds good a more extended observation has shown that the test in actual practice is not by any means so reliable an indication as was originally believed, and this for two reasons. In the first place, not only do we occasionally come across a typical and even severe or fatal attack with distinctive clinical appearances of diphtheria, in which careful and repeated examination of the throat and secretions fails to reveal the presence of a single diphtheria bacillus, but characteristic and even virulent bacilli may not infrequently be found in the throat secretions of perfectly healthy persons, especially if they have been in contact with cases of diphtheria. Indeed, one of the most typical and virulent cultures of diphtheria bacilli which I ever remember to have seen was obtained from the throat of one of my medical colleagues who was at the time and subsequently in his normal health with no suspicion even of a sore-throat. And the same thing may often be demonstrated in respect to the nurses who are working in the diphtheria wards. Now, whatever bearing this may have in regard to their infectivity one would certainly not be justified in saying that these persons were suffering from diphtheria. Again, in a consecutive series of 140 cases of scarlet fever in which the throat secretion was bacteriologically examined diphtheria bacilli were detected by Dr. Sims Woodhead in 36 per cent. of them, although very few presented features which suggested the presence of diphtheria. Ranke of Munich found diphtheria bacilli in 53 per cent. of his scarlet fever cases. Moreover, the more or less persistent rhinorrhœa which is so often seen during convalescence from scarlet fever in young children is in perhaps the majority of cases found to be teeming with bacilli which are morphologically difficult to distinguish from those of true diphtheria. In some of these, at any rate, as was shown by Dr. Todd of the London Fever Hospital, the discharge contained genuine Klebs-Löffler bacilli, as evidenced by their virulence when injected into susceptible animals. It is a curious fact that the bacilli in these cases are almost invariably limited to the nasal discharge and do not invade the faucial or laryngeal mucous surfaces, and though their presence is unattended by any visible exudation or clinical evidence of diphtheria the possibility of their becoming a source of infection under favourable conditions cannot be ignored. Although a negative bacteriological examination cannot unfortunately be regarded as quite conclusive a strong presumption is made out in favour of the case not being one of diphtheria in the hands of an expert observer. The second, and to my mind an even stronger, argument against the infallibility of the bacteriological test is the wide difference of opinion which exists amongst eminent bacteriologists as to what is and what is not a diphtheria bacillus. A bacillus which is regarded by one observer as a true bacillus which has undergone a temporary attenuation is held by another equally experienced observer as a pseudo-bacillus, or one which is of an entirely distinct species and incapable under any circumstances of acquiring virulent pathogenic properties. To the first observer the case is one of diphtheria, potentially at any rate; to the other it is not a case of diphtheria at all. Until the limits of normal variation both in respect to form and virulence can be agreed upon no practical differentiation is possible and as long as an appeal to the results of injection into the lower animals is necessary for a decision the test must remain of limited value in practice.

Having now briefly alluded to the disabilities which attach to the bacteriological test in the diagnosis of diphtheria one may summarise its utility in actual practice as follows. A negative result after careful examination of material taken from the throat and of the culture derived from it on at least two occasions may be held practically to exclude diphtheria. A positive result after examination of a throat presenting a definite pellicular exudation or from the larynx without visible exudation on the fauces may be regarded as sufficient evidence of diphtheria. The presence of short bacilli (suggesting diphtheria bacilli) in the nasal discharge alone even though attended with isolated spots of exudation on the tonsils cannot be held to be distinctive unless confirmed by inoculation into animals.

The procedure required to secure a bacteriological examination is, I have no doubt, familiar to most, and in view of the importance attaching to the early recognition of diphtheria both for successful treatment and for speedy isolation, and having regard to the facility with which the practitioner is now able to get the examination made for him, it is very desirable that he should be prepared with the necessary equipment. All that is required is a couple of test-tubes, the one containing a sterilised swab of cotton-wool for taking

material from the throat and the other some inspissated blood serum, preferably Löffler's preparation, on which the material is sown by simply rubbing its surface with the swab. These tubes can be procured at very small cost from the Jenner Institute, the Clinical Research Society, Messrs. Burroughs, Wellcome, and Co., and other druggists of repute, and as they will keep for months in a cool place two or three of them may be kept for immediate use should occasion arise.

In the differential diagnosis of faucial diphtheria it is mainly in connexion with follicular tonsillitis and the exudation throats present in some cases of scarlet fever that difficulty is most often experienced. From follicular tonsillitis the differentiation may be most difficult, and, indeed, it may be impossible apart from the bacteriological test. The distinction is rendered none the less difficult owing to the fact that in some cases of diphtheria the exudation commences at the very points which are most characteristic of follicular tonsillitis—viz., at the mouths of the follicular crypts in the form of spots or little patches of exudate which at a later stage enlarge and ultimately become confluent so as to form a continuous pellicle covering the surface of the tonsil, but at an early stage the appearance of both is very similar. The clinical features on which some reliance can be placed are that in follicular tonsillitis the spots rarely coalesce and the exudation never spreads to adjacent parts but remains limited to the tonsils. Both tonsils are usually affected very much to the same degree and the same thing holds good for the swelling of the subjacent glands, while in diphtheria it is perhaps more common for one side to be involved more than the other and for the gland swelling to be proportionally greater. In follicular tonsillitis albuminuria is far less common, but the temperature is usually higher—in fact, the general statement is justified that the constitutional disturbance in follicular tonsillitis is likely to be more pronounced than in a case of diphtheria of sufficient mildness to be mistaken for it. It should be remembered, too, that in a child the attack is more likely, *primâ facie*, to be one of diphtheria than of tonsillitis simply because in childhood the latter disease is relatively uncommon. Laryngeal implication never supervenes, nor does any subsequent paralytic affection, whether of the palate, accommodation, or of the skeletal muscles—so distinctive of diphtheria.

Now, of those cases of scarlet fever which are attended with an exudation simulating the appearance of diphtheria it may be stated generally that they are almost invariably severe attacks and the characteristic symptoms of scarlet fever are usually so pronounced that the presence of that disease can hardly be overlooked. The difficulty in this instance is usually to decide whether the exudation is purely scarlatinal or whether, as is sometimes the case, it is an attack of scarlet fever complicated with coexistent diphtheria. The scarlatinal exudation is limited to the tonsils practically always; it is of a cheesy, friable consistence and it is easily removed with a camel-hair brush, tending to disappear spontaneously in a day or two. If it be genuine diphtheria, on the other hand, it is usually thicker, tough, gelatinous, or fibrous-looking, incapable of removal without lacerating the subjacent tissue, and it separates *en masse* after an interval of several days. In a case of uncomplicated diphtheria, of course, the exudate may be thin, friable, and easily detached, but in these concurrent attacks the condition is usually grave and the exudation as a rule presents the characters which I have mentioned. The constitutional depression, too, is severe and the case is very liable to terminate fatally with cardiac failure or to present some form of paralysis during early convalescence. As far as my experience goes it is much more common for a case of diphtheria attended with an erythematous flush to be mistaken for scarlet fever than for a case of scarlet fever with exudation to be confused with diphtheria.

In laryngeal diphtheria or membranous croup the differential diagnosis from simple laryngeal catarrh may be very difficult during the early stage, and this is particularly so when the larynx is the primary seat of the disease. It is very fallacious to place any reliance on a history of exposure to cold or on the apparent absence of any source of infection. Nor can any trustworthy indication be derived from the character of the respiration or the quality of the cough or laryngeal sound. I know of no other reliable test than a bacteriological examination of some of the laryngeal mucus which can be easily obtained by passing a swab mounted on a bent wire into the upper part of the larynx. But this, of course, means the loss of valuable time unless the diagnosis can be made by means of an immediate microscopical examination of the material on the swab, which is usually possible to anyone conversant with the diphtheria bacillus and which in most cases will prove reliable. The fact that "cases of simple catarrhal laryngitis are never fatal" is not of much assistance in the early diagnosis of the condition. In cases, however, in which the fauces are involved primarily or even coincidently with the larynx—a condition which is of common occurrence—there is not much room for doubt. The appearance of the very smallest patch of exudation on the tonsil in a case of croup is practically sufficient to establish it as one of laryngeal diphtheria and calls for prompt and efficient treatment. This is above all the class of case for showing what a splendid weapon we possess in antitoxin.

Enteric fever.—Let us now turn our attention to enteric fever, a disease of which the diagnosis is liable to be attended with more difficulty probably than in the case of any other specific fever. There are several reasons why this should be so. 1. In its clinical appearances it so often simulates some other disease. 2. There is frequently a complete absence of any symptoms referable to the abdomen; consequently a diagnosis can only be arrived at in many cases by a process of exclusion. 3. It is very prone to become complicated by some other disorder, particularly bronchitis, pneumonia, and alcoholism, of which the symptoms are liable to be so prominent as to obscure the ordinary manifestations of enteric fever. 4. Lastly, the indications suggesting the presence of enteric fever may not be apparent until the lapse of a week or more, and, having in the meantime formed a different opinion as to the nature of the attack, we are liable to be hampered in our diagnosis by the influence of a preconceived idea.

In most cases of enteric fever the development of the attack is undoubtedly slow and insidious, but by no means necessarily so. I have met with a good many cases of enteric fever in which the onset was as sudden and explosive as in any case of small-pox or influenza and these cases almost invariably run a severe course. During the first week of enteric fever, in addition to the usual complaint of headache, weariness, aching of the back and limbs, progressive loss of appetite, coating of the tongue, vague pains in the abdomen, and increasing pyrexia, there are four symptoms which are very suggestive of oncoming enteric fever, though not often mentioned, as far as I remember, in the text-books—viz., slight bronchial cough, sore-throat, partial deafness, and bad dreams. A patient will frequently admit upon being interrogated that he has slept badly, often during the night waking suddenly with a start in consequence of some transient nightmare which he has probably quite forgotten in the morning until it is recalled to his mind by a leading question. On inquiry into the history of the onset it will usually be elicited that there have been short periods of intermittent diarrhœa, rarely of longer duration than a day or two, which may or may not reappear during the progress of the fever. The fact cannot be too strongly emphasised that diarrhœa is by no means a necessary attendant of enteric fever. If 100 consecutive attacks of all grades of severity be taken it will be found that, in this country at any rate, the large proportion (if we except the slight premonitory diarrhœa referred to) are characterised by constipation throughout and require the routine soap-and-water enema every third day. If, however, the severe attacks alone be taken the majority will be found to have been attended by diarrhœa of the usual pea-soup character.

Of the other characteristic indications of enteric fever a few words must suffice. The typical daily remittent temperature declines gradually during defervescence. A termination by crisis hardly ever occurs in enteric fever unless the case has been complicated, usually by pneumonia. This may affect a small patch of lung simply and not necessarily an entire lobe. It will have been sufficient to delay the normal defervescence of temperature which would otherwise have taken place, but when the pneumonic crisis occurs the temperature falls suddenly, since the enteric fever may no longer be able to provide for its further sustentation. A slow pulse is occasionally met with, the rate at no time rising above from 44 to 60 beats, although the temperature may have ranged from 101° to 103° F. for a considerable time. These "slow pulse" cases in my experience have always done well, though Murchison seems to have regarded them as of unfavourable omen. The eruption is

never seen before about the end of the first week, but spots may come out at any time afterwards until the temperature has reached the normal. Their number conveys no indication of the severity of the attack as it does in typhus fever. About 30 per cent. of the cases are unattended by a rash and the large majority of these are in children. One cannot expect to find palpable evidence of enlargement of the spleen until the end of the first week and the enlargement can rarely be detected later than two or three days after the temperature has begun to fall. Personally, I am very sceptical as to my ability to recognise enlargement of the spleen in enteric fever with certainty unless I can feel its lower border beneath the costal arch. I have often seen the observation as to the absence of enlargement discounted in the post-mortem room. Obvious desquamation occurs in from 30 to 40 per cent. of enteric fever convalescents. It is for the most part limited to the trunk, is scaly, and is never, I believe, of the "pin-hole" variety.

During recent years a great deal of interest has centred round what is usually known as Widal's reaction (it should more justly be called the Gruber-Durham reaction, though Widal was the first to apply it as a test for the recognition of enteric fever). It may be briefly described as the faculty which is possessed by the blood serum of a person suffering from, or recently convalescent from, enteric fever of causing the bacilli in a 24 hours' broth culture to lose their motility and range themselves together into clumps, instead of remaining in active movement as isolated individuals spread all over the field. Now, the possession of this power of causing agglutination by enteric serum may with certain restrictions be regarded as a test of distinct value. It must be remembered that normal blood serum undiluted, or if but slightly diluted, will after a time produce a certain degree of clumping, and that the bacilli in a drop of culture when placed on the slide will after a time lose their motility and often evince a tendency to clump without any admixture of enteric serum at all. Hence a standard degree of dilution for the serum and a standard length of time within which the reaction must occur have to be fixed before any conclusion can be drawn as to the claims of any particular serum. A dilution of one in 10 and a period of half an hour have until recently been the standards adopted, though a dilution of one in 20 or one in 30 is now regarded as more reliable.

In order to illustrate the degree of reliance which may be placed on the serum test I cannot do better than summarise the results obtained in two series of cases which were tested by separate observers. The first, consisting of 125 cases was published by Dr. Colville and Dr. Donnan of Belfast in the *British Medical Journal* in 1898, and the second, comprising 184 cases, was reported by Dr. Kirton of the Brook Hospital in the Medical Supplement to the Metropolitan Asylums Board Report for 1897. Of the total 309 cases examined, 206 were proved to have been enteric fever either by undoubted clinical or post-mortem evidence and 103 were decided not to be enteric fever either at the time or as the result of more extended clinical observation. Of the 206 cases of enteric fever the blood serum gave the reaction in 201 (although it is fair to state that in seven of them the reaction was not very complete), and of the 103 cases which were not enteric fever in only one did the reaction occur and that, curiously enough, was a case of typhus fever—that is to say, in only six out of 309 cases, or rather less than 2 per cent., did the serum test fail to support the diagnosis. The reaction, it should be remembered, is rarely obtainable before the sixth or seventh day of the attack and in some cases the serum ceases to react before the expiration of three months from its commencement, though it can often be obtained for two years or more after recovery, but usually in a less complete degree. This fact should lead to careful inquiry into the previous history. Though by no means difficult of application there are probably few practitioners who are likely to keep by them the necessary equipment, which includes a living culture of enteric fever bacilli of not more than 24 hours' existence. In view of the ease, however, with which one can get the examination made at the Jenner Institute or at other accredited laboratories it is well to keep at hand the means necessary for collecting and transmitting a few drops of the blood of any suspected case. All that is required is a sterilised capillary pipette (Pakes's tube), a little ether, and a sharp needle.

Now, of the diseases which are most likely to be mistaken for enteric fever and, indeed, frequently are mistaken for it, perhaps the most important are, first, a group of affections characterised by abdominal inflammation—viz., febrile gastro-intestinal catarrh (particularly in young children), tuberculous peritonitis, tuberculous enteritis, ulcerative colitis (which may have been set up by an attack of enteric fever), and appendicitis; and, secondly, certain general diseases, especially acute miliary tuberculosis, meningitis (most often tuberculous), pneumonia, ulcerative endocarditis, typhus fever, acute alcoholism, and influenza. All these, and a good many others, I have seen mistaken for enteric fever, and often with very good reason, at an early stage. Tempting though it is to enter into a consideration of their detailed specific distinctions, I fear that the time at my command is far too restricted to admit of it. I must therefore content myself with recalling to mind certain positive indications which point to the diagnosis of enteric fever and which in combination must be rare accompaniments of any of the affections which I have enumerated. 1. Some degree of deafness unattended with evidence of mental impairment. 2. Continued pyrexia of a regular daily remittent character, rarely showing any period of complete intermission until defervescence which sets in gradually. 3. A papular rash on the trunk, rarely affecting the limbs and still more rarely the face. 4. Enlargement of the spleen to an extent often palpable to the fingers. 5. A positive reaction with the Widal test. 6. The onset of intestinal hæmorrhage or perforation at a later stage.

The reappearance of epidemic influenza during the last 10 years has greatly increased our difficulties. There are some attacks of that now "hardy annual" which I will defy any human observer to differentiate from enteric fever at an early stage; that is unless he may have seen very little of either. The differentiation from typhus fever is not of the same importance in this country as it was 25 years ago but when the disease occurs in London, as it occasionally does even now, the earlier cases are usually mistaken for enteric fever, especially in children, in whom the rash is often absent.

Small-pox.—The diagnosis of small-pox at an early stage is liable to be confused with measles and also with scarlet fever when attended with a prodromal rash of an erythematous or punctiform character. In the former case the similarity may be very striking, especially if the onset of measles be attended with lumbar pain as is sometimes the case in adults. The absence of vomiting, however, and of the peculiar shotty feel which the rash of small-pox soon assumes and the fact that the temperature rises instead of falls when the eruption comes out and that it is accompanied by marked catarrhal symptoms will soon dispel any doubts which may remain. But it is in connexion with chicken-pox that mistakes are most often made in the diagnosis of small-pox, especially in the modified form of the disease.

The points of difference in connexion with the development of the attack and the distribution and characters of the respective eruptions are well set out in the text-books and are adequate for a diagnosis in most cases, but the fact that chicken-pox in an adult is apt to be attended with really severe symptoms of invasion and that in modified small-pox the specific distinctions in respect to the eruption may be by no means easy of recognition still leaves room for a very considerable degree of doubt in some cases. There are, however, three points which rarely seem to be insisted on even if they receive any mention at all in the text-books. They are well worthy of remembrance as any one of them may be in itself almost sufficient to clinch the diagnosis: 1. In varicella, pocks in different stages of development—papule, vesicle, pustule, and scab—may usually be seen at the same time within a circumscribed area of skin. 2. If a single developed vesicle can be detected upon any point of the skin which 24 hours previously showed no sign of a developing pock even in its early papular stage, that one vesicle is sufficient to exclude small-pox altogether. 3. The detection of any cicatrices of antecedent varicella (which on careful scrutiny of the surface are to be found much more frequently than is usually credited) is practically sufficient to exclude varicella, so extremely rare is a second attack of that disorder.

Stockwell, S.W.

SUPERANNUATION ALLOWANCE.—Dr. Richard Purnell, late medical officer of the First District Wells (Somerset) Union, has been granted a superannuation allowance of about £70 by the Wells Board of Guardians.

PHYSICAL DIAGNOSIS IN THE INSANE.

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NOWHERE perhaps is the importance of physical diagnosis more forcibly presented to our minds than in the insane. In them we have much more frequently than not it alone to depend upon, and the aid which the general practitioner and hospital physician obtain subjectively, together with the history, is usually wanting or at best unreliable. This of itself is a great disadvantage and we would be grateful were it the only one, for another which the asylum physician has frequently to encounter is the resistance of the patient to examination. Only those who have experienced it know what this really means. The maniacal shouts, turnings, and twistings, to say nothing of more determined efforts to oppose, are circumstances not calculated to facilitate examination. Yet such we have frequently to contend against, not only in diagnosing disease in this class of patient but in treating it. Catheterism, for example, has often to be performed and wounds dressed in patients assuming the most inconvenient postures. Another drawback, the insensitiveness of the insane, from whatever cause arising, to bodily pain and discomfort, is sufficiently well known. The numerous instances of retention of urine suspected by the practised eye from perhaps a change in posture or an alteration in walk; strangulated hernia uncomplained of and discovered on bathing or on attention being called to an attack of vomiting; enteric fever recognised when the eruption is out; and numerous other examples of serious bodily disease to which no attention has ever been directed by the patient himself, are experiences which we have all met with. Hence it is that apparently very trivial circumstances may often give warning and indicate to our eyes grave illness. Notwithstanding, however, the keenest observation we have every now and then disease presented to us in a stage which in sane patients would have been complained of at the outset and have thus afforded an earlier opportunity of diagnosis or at all events an approximate one. For the detection, then, of disease in the insane we have to rely almost entirely upon physical diagnosis. With these preliminary remarks I propose to mention and briefly describe a few cases by way of illustration, some of them interesting from their comparative rarity and all with one exception from the fact that the history and symptomatology were for practical purposes wanting.

Purulent meningitis.—The patient in this case was a woman, aged 21 years. Beyond the fact that she was known to have a mitral regurgitant murmur there was nothing in her past history having any bearing on her present ailment, of which the patient was quite incapable of giving any account. She had for a few days previously to Sept. 28th, 1898, not been taking her food as well as usual and as she looked generally ill on that morning she was at once sent to the hospital. Her temperature then was 103° F. She gave no indication that she could hear what was said to her, was semi-conscious, and could scarcely be roused. Her muscular system was in a state of extreme irritability and on being raised for purposes of examination she became very stiff and rigid, the head was drawn back, and the muscles of the back of the neck were thrown into a state of tetanic contraction. The pupils were dilated and reacted sluggishly, the gums were spongy and suppurated from decayed teeth, the tongue was dry and coated, and the urine was normal. Nothing was discoverable in the lungs or abdominal organs to account for her condition. Her temperature in the evening rose to 105° and since admission frequent retching and vomiting had supervened. On the 30th the temperature still continued high (104°); vomiting, irrespectively of the state of the stomach as to food, was persistent; the bowels were confined; there was retention of urine; the pupils were still dilated; the tongue was dry and foul and the lips and gums were covered with sordes. The muscular system was extremely irritable and the patient became rigid on any attempt at movement. The pulse was rapid but regular and the respirations were correspondingly increased. There was a dark trophic patch on each buttock. The patient was quite unconscious. On Oct. 1st the temperature was 104·8°; the specific gravity of the urine was 1030, it was albuminous, and contained a trace of sugar; the head and eyes deviated to the right, the mouth was slightly twisted to the same side, and there was slight facial twitching. The right arm was rigidly flexed and when forcibly extended and let go at once resumed its abnormal position. The eyes were suffused. There were dark trophic areas and bullæ on the heels and tarsal prominences. On the 2nd the patient was comatose and rapidly sinking. She died on the evening of the 3rd, the temperature rising to 105·8° some hours before death.

Necropsy.—The dura mater was thickened and firmly adherent to the skull cap. The pia arachnoid over the convex and basal aspects of the brain was thickened and infiltrated with a greenish-yellow exudation of pus dipping down between the sulci and specially thick and abundant in the track of the larger fissures. The surface and lateral margins of the cerebellum were also invaded. Generally the brain substance was soft and œdematous and the vessels were congested. The grey matter was of a deeper colour than usual. The ventricles were dilated and filled with a dirty yellow fluid. There were hypertrophy of the left ventricle and thickening of the mitral valve. The kidneys were congested and the left one exhibited several recent infarcts.

Phlegmonous gastritis.—A man, aged 66 years, on Dec. 22nd, 1896, complained of nausea and vomiting. There was nothing, however, in his general appearance to indicate that there was anything very much the matter. His temperature was normal but the pulse was somewhat irregular. The next morning he rose but fell back and suddenly expired.

Necropsy.—The heart was found to be enlarged, weighing 14 ounces; the mitral valve was stenosed and the aortic valve was calcareous and incompetent. The stomach was greatly dilated, the mucous membrane was congested, and submucous hæmorrhages were present. The stomach wall was greatly thickened and on section large quantities of fluid pus exuded from the submucosa which was in a state of diffuse purulent infiltration.

Malignant endocarditis verrucosa.—No detailed description of this case which lasted about three weeks will be entered upon, but only a general survey of its progress from commencement to finish along with the factors contributing to its differential diagnosis. The only clear history obtainable was that some months previously the patient had a severe attack of rheumatic fever from which she slowly recovered, but with an impaired mental condition which gradually becoming more pronounced culminated before admission in an attack of acute delirium. Her condition on admission was one of semi-consciousness, extreme restlessness, incoherent muttering and screaming, loss of control over the sphincters, constant purposeless movements of the limbs and body, and extreme motor irritability. In fact, at first sight the case appeared to be one of severe and fatal chorea which is occasionally to be met with. That there were some grounds for the suspicion I think may not very strongly be objected to. The patient sometimes refused food, but this was not owing to inability to swallow, as the act of deglutition was normally performed even when the general muscular system was in a state of violent movement, the patient tossing her arms and legs about and rolling her head uneasily from side to side. These choreiform movements would suddenly cease and the patient drop into apparently a deep slumber from which, however, she was easily roused. The skin was hot and dry and later exhibited a petechial rash; the tongue and lips were parched and covered with sordes; the pupils were dilated and her general appearance indicated some acute febrile affection. The temperature was 103° F. on the evening of admission and continued more or less elevated throughout, though exhibiting considerable irregularity. The urine contained a large quantity of albumin and there was a loud mitral regurgitant murmur; considerable diarrhœa, slight distension of the abdomen, and gurgling were also present from the beginning. No rose spots or enlargement of the spleen were ever detected. Towards the end the heart's action became extremely rapid, the albumin increased, and coma supervened. Throughout muscular irritability was extreme and any attempt at sitting the patient up was accompanied by tetanic rigidity of the erector spinæ muscles. Passive motion of the extremities yielded the same state of matters.

Necropsy.—The heart weighed eight ounces. Large warty vegetations were present on the mitral segments and surrounding the mitral orifice. The left kidney and spleen were the seat of infarctions and both the kidneys were cirrhotic.

Intestinal obstruction.—The patient was a woman, aged 63 years. On admission on Sept. 4th, 1898, she complained of pain and uneasiness in the abdomen, nausea, and vomiting. The abdomen was somewhat distended and there was constipation. Her general condition did not, however, point to anything very serious. This description indicates the state of matters for about a fortnight—vomiting, constipation, pain in the lower region of the abdomen, and distension. About that time the pain and distension increased and vomiting became very frequent. The urine was scanty but otherwise normal, the heart's action was weak and irregular, and there was a localised pericardial murmur. Extreme thirst was a marked feature of the case. As the case progressed the distension further increased and somewhat irregularly, being greater in the right flank than elsewhere. In this region the percussion note was dull and palpation gave a sensation of fluid. Intestinal obstruction from volvulus or stricture of the large bowel was diagnosed, but owing to the cardiac complication and the patient's general weak condition operative interference was not considered advisable. Death occurred a couple of days afterwards.

Necropsy.—At the post-mortem examination the heart was found to be dilated and hypertrophied and the two layers of the pericardium were over the greater portion of its surface loosely adherent. The head of the pancreas was occupied by a cancerous tumour and the pyloric end of the stomach and transverse colon were matted together, the lumen of the latter being almost obliterated by the contraction of firm adhesions. The small intestine above the ileo-cæcal valve had become twisted on itself and the ascending colon was enormously distended with fluid fæces. The presumption is that the increased distension and exacerbation of vomiting which occurred a few days before death were occasioned by the twist in the small intestine.

Remarks.—The signs in the case of purulent meningitis were tolerably characteristic, and as suppuration due to carious teeth was the only source of infection discovered I have reason for concluding that the disease owed its origin to this. I have seen cases of purulent meningitis secondary to necrosis of bone, sloughing bedsore, and cellulitis of the orbit, but this is the first occasion on which suppuration due to carious teeth has come under my observation. Knowing the frequency of such and the filthy condition in which many patients keep their mouths it is well to bear this in mind, more especially in the case of epileptics, in seeking for the source of infection. The appearance on the third day of trophic lesions is also to be noted—a circumstance not infrequently observed in such cases. Another feature was the extension of the inflammation to the ventricles of the brain—a circumstance stated to be very rare and designated by the term "pyocephalus internus." It is possible that the sugar found in the urine may have been due to pressure on the fourth ventricle. The temperature was high throughout. Generally speaking, this is the case and it is not unusual to find it 106°, although in my experience it never attains the height met with in status epilepticus, and in the convulsive seizures of general paralysis. In other cases, however, it may not exceed 100°.

The case of phlegmonous gastritis is interesting from its extreme rarity. There were absolutely no symptoms except the attack of vomiting, and this of itself was nothing to go by. In fact the disease was only discovered post mortem. From the absence of symptoms and the condition of the viscus the case must be considered a chronic one, rare according to Ewald even in this rare disease. In view of the fact that 18 months previously the patient suffered from a somewhat prolonged attack of dysentery attended by extensive sloughing of the rectal mucous membrane, I might further particularise and consider the case as belonging to the metastatic form and having for its origin this condition of the lower bowel. The fact that after his recovery from dysentery he was subject to occasional attacks of vomiting and diarrhœa with motions of the colour of pus is perhaps not inconsistent with the suggestion of a slowly extending cellulitis of the stomach. In the description of the case of ulcerative endocarditis the diseases with which it is most often mistaken, typhoid fever, meningitis, and miliary tuberculosis, have been incidentally touched upon. The muttering delirium, fever, and extreme muscular rigidity of the spinal muscles on attempted movement present in this case are also characteristic of meningitis and miliary tuberculosis. It was only by frequent and careful examination of the lungs that I could exclude the latter. To eliminate the former, however, was not such an easy task, and although I eventually committed myself to the diagnosis of ulcerative endocarditis the differentiation between the two was perhaps not very marked; in fact, the disease might have quite justifiably been diagnosed meningitis. It is known that ulcerative endocarditis may cause meningitis and be of itself attended by like cerebral phenomena without implication of the meninges. Both in the case of purulent meningitis and in the present one organic cardiac murmurs were audible and the general symptoms in both were pretty much the same. No degree of auscultatory precision, however, can distinguish between a murmur due to simple endocarditis and one dependent on the malignant form. The two cases which we are at present contrasting had in addition other features than the cardiac lesion in common. In both there were evidences of marked cerebral and vaso-motor disturbance, muscular irritability as shown by marked rigidity on attempted movement, and albuminuria and high temperature. In the one case, however, there was a history of a severe attack of rheumatic fever with the development of a pronounced cardiac lesion, but with no discoverable focus as in the other to give rise to meningitis. Then, again, the facial convulsions and spasmodic contracture of one arm with deviation of the head and eyes to the same side indicating a lesion within the cranium were present in the one case and not in the other. Further, persistent vomiting and especially the rapid development of trophic bedsores and bullæ were much more characteristic of meningitis than endocarditis. The condition of the bowels and bladder also afford a distinguishing clue, constipation and retention of urine being present in the former and abdominal distension and diarrhœa in the latter. The fundus of the eye was in neither case examined, but the discovery of retinal hæmorrhage or optic neuritis would not have materially assisted in differentiating, as these may occur in either. It is possible that the rigidity and choreiform movements in the present case may have been due to numerous minute emboli, but of this there was no proof. The case of intestinal obstruction is illustrative generally of the difficulties which attend the differentiation of the various causes of this condition. It is also interesting from the fact that the obstruction was due to an unsuspected cancer of the pancreas. Of this there was absolutely no evidence during life. The patient was well nourished and did not show the rapid emaciation and intense jaundice often met with in cancer of this organ and the abdominal distension prevented the feeling of any such thing as a tumour. Only a few months previously a case of cancer of this gland came under my observation characterised by intense jaundice and rapid emaciation. From the position of the tumour, however, a diagnosis of cancer of the duodenum was made. The latter, though a rare affection, has pretty much the same signs as cancer of the pancreas and a diagnosis between the two is almost impossible. The absence of sugar in the urine in the present case has been already mentioned and shows that its presence in affections of the pancreas is not invariable.

Leaving the side issue into which, perhaps, I have been drawn I propose to examine briefly the other feature of interest—intestinal obstruction. That due to volvulus of the sigmoid and stricture as being, perhaps, the most common will alone be considered and only in so far as actual cases have presented points of special interest and difficulty. The characteristic symptoms of acute obstruction as exemplified in a case of volvulus are sudden and severe pain, retching and vomiting, constipation, tympanites, and collapse. In the case of lunatics, however, pain may not be complained of, attention being first directed to the case by an attack of vomiting, and on examination the abdomen is found to be rigid and tympanitic. Such of themselves are, however, not always sufficient to warrant a diagnosis of intestinal obstruction, as they occur under other circumstances, but they are often all we have to go upon at first. In the case, however, of acute obstruction, as from volvulus, the rapid supervention and continuation of collapse, together with absolute constipation, though not conclusive, to a great extent narrows the diagnosis; still I have known perforation of a gastric ulcer to come under observation at so late a stage that from the abdominal distension and other symptoms the case closely simulated one of intestinal obstruction.

Taking, then, as a basis a series of cases which have come under my observation, let us see if it is possible from a close observation of the signs and symptoms to deduce any facts which will assist a differential diagnosis. Chronic intestinal

obstruction in the insane is often discovered so late that for all practical purposes the symptoms would seem to indicate the acute form. No history is obtainable and the earlier symptoms which among the sane would lead one to suspect chronic obstruction have never been complained of by the patient or noticed by the attendant. Vomiting, collapse, and most probably tympanites may, as already suggested, be the indications that first direct attention to the patient. Such is the case presented, what is it? For purposes of limitation I assume that the case is one of intestinal obstruction and the only other condition provocative of somewhat similar symptoms from which it will be attempted to distinguish it is perforation with accompanying peritonitis. In differentiating the various forms of obstruction too much stress must not be laid on the age of the patient, for although an age of 45 years and upwards is suspicious of volvulus or stricture it does not by any means exclude strangulation by bands, &c. With this reservation, then, and taking for granted that the obstruction of the small bowel has been excluded and that the patient's age, &c., suggest volvulus or stricture, I shall discuss only these two causes of obstruction. If the case is seen comparatively early—i.e., before the abdomen is excessively distended—the appearance of fulness extending from the left hypogastric and iliac regions towards the umbilicus, together with a feeling of increased resistance and tension communicated to the hand and a development of hyper-resonance in this locality point to volvulus. If upon these signs supervene an increase in the horizontal diameter of the abdomen and of the resonant area of the colon the diagnosis is rendered still more certain. The passage of a long tube or digital examination under chloroform will also tend to confirm. In what way, however, may volvulus be distinguished from stricture of the sigmoid? I am still presuming a case in which the patient is admitted to the hospital with vomiting, distension, collapse, and with no history. The passage of a long tube only reveals the fact that there is an obstruction in the lower portion of the gut and for differential purposes digital exploration is more valuable. If by means of it an irregular hard mass or enlarged glands are felt, the presence of malignant stricture, especially if the left leg and thigh are swollen and the veins are engorged, is practically confirmed. If, however, the stricture lie in the upper portion of the sigmoid, or beyond, digital examination or that by the tube affords little or no information and other features of the case have to be considered in order to arrive at any satisfactory conclusion. In volvulus, again, constipation is absolute from the first, but in stricture, especially malignant stricture, there is often diarrhœa and discharge of blood. Further, in stricture the contour of the colon is better defined and dulness and the feeling of a semi-fluid or mouldable mass limited to the region of the cæcum or extending thence in the line of the ascending colon is more significant of this form of obstruction than of volvulus, as in the latter these signs are to a considerable extent obscured by the production of gas in a voluminous sigmoid and the lesser likelihood of fæcal accumulation owing to more persistent vomiting, &c. To the presence of the same may also be attributed the infrequency of coils and visible movement of the intestine in volvulus as compared with stricture. The excessive accumulation of fæces in stricture is owing to the prolonged previous constipation and to the fact that food is not vomited to the same extent as in volvulus, in which the accumulation if it exists is in the sigmoid and may when this is very moveable even be the cause of the volvulus. Under certain conditions the vomit in stricture may consist almost entirely of blood and that in large quantities. When such is the case stricture may be mistaken for perforation of a gastric ulcer or *vice versâ*. In perforation there may or may not be hæmatemesis, but if owing to rapid collapse attention is drawn and the patient seen before distension of the abdomen from peritonitis has set in, we can, from what has already been said on the subject of stricture, affirm pretty confidently that it at least is not present. If, however, the patient comes under observation after peritonitis has set in the diagnosis is rendered more difficult and the probability of ascertaining the state of the colon by palpation is rendered almost impossible by the rigidity of the abdominal walls and great peritonitic distension. The age of the patient and the progress of the case will then be our chief guides. Gastric ulcer occurs at a much earlier age than stricture and when erforation occurs tends to a more rapidly fatal issue. It is of course obvious that profuse hæmatemesis due to stricture of the colon can only occur when the obstruction is malignant and has become adherent to the wall of the stomach.

Lancaster.

ON "CHRONIC VENEREAL SORES," OR "ULCERATING GRANULOMA," WITH AN ILLUSTRATIVE CASE.

BY J. MAITLAND, M.D. EDIN.,

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With Note by JAMES GALLOWAY, M.D. ABERD., F.R.C.P. LOND.

THE following case affords a typical example of the disease described by myself in the *Indian Medical Gazette* of May, 1898, under the designation of "chronic venereal sores" and which appears to be identical with the affection prevalent in British Guiana and named by Dr. J. H. Conyers and Dr. C. W. Daniels[1] "groin ulceration." At the time that the above-mentioned article in the *Indian Medical Gazette* was written I had not had the advantage of seeing the description of the disease given by Dr. Conyers and Dr. Daniels and I was unaware that any notice of it had previously been published. The disease is fairly common in Southern India, and Surgeon-Colonel K. Macleod's article on the subject in the *Journal of Tropical Medicine* for February, 1899, points to the fact that it is also to be found in Northern India. The following are the notes of the case.

A Hindoo cigar-roller, aged 30 years, was admitted into the Madras General Hospital on Feb. 14th, 1899, suffering from sores in the groin and on the penis. The history given by the patient was as follows. Six months previously, four days after intercourse, a sore appeared on the glans penis. Ten days later a bubo formed in the right groin, burst, and discharged sanious fluid. Neither the ulcer on the penis nor the bubo ever healed but continued to spread slowly up to the date of admission into hospital. Slight local pain and irritation were experienced but the general health was not affected in any way. The following note was made of the condition of the patient on admission to hospital: "The patient is well developed, muscular, and in good health. Situated in the right groin is a sore measuring two and a half inches in length by one inch in width. There is no induration of the base of the sore which can be freely moved to and fro over the underlying structures. The surface, which is raised above the level of the surrounding skin in some places to the extent of a quarter of an inch or more, is irregular, of a dirty-pink colour, and somewhat waxy appearance. In consistence it is soft but firm and hairs are seen protruding here and there from the surface. It is almost entirely devoid of discharge. The edges are fairly regular and show no signs either of healing or breaking down. A small zone of epidermis is seen to mount, as it were, into the base of the mass of granulation tissue. Close to the existing sore is the scar of an old bubo. The prepuce is retracted and swollen. Situated on the under surface of the glans and body of the penis is a sore which differs in some respects from the one already described. The surface is smoother and not raised much above the level of the surrounding skin and scattered over it are numerous small white patches of newly formed epithelium. A slightly offensive odour is given off from the sores." On admission to hospital the following treatment was resorted to. The skin surrounding the sore in the groin was shaved and thoroughly purified by means of antiseptic lotions and boric acid dressings were applied. A month after admission an anæsthetic was administered and the whole of the affected skin in the groin together with some of the underlying fat and lymphatic glands were removed by means of the knife. The edges of the resulting wound were then brought together by sutures. It was considered advisable to postpone operation upon the penis until the wound in the groin was healed. Five days later, slight pain being complained of, the dressings were removed, when it was found that suppuration had taken place and two stitches were removed to give exit to the pus.

[1] British Guiana Medical Annual, 1896.

The patient is still under treatment. It is important to note that the operation was attended with very free hæmorrhage, the tissues surrounding the sore being extremely vascular.

This case is typical of the affection in its chronic stage, the commonest form met with. Occasionally the disease takes on a more rapid and destructive action; the edges as well as portions of the granulating mass break down and discharge thin offensive pus and the sores spread rapidly. In this way large areas of skin become involved and if the penis be affected the whole of that organ may be destroyed and the scrotum and perineum may become converted into a huge ulcer emitting a very offensive odour. At other times attempts at healing take place; the mass of granulation tissue shrinks in size and the sore becomes flatter. Islands of epithelium appear here and there on the surface of the sore and healing takes place at the edges. In a fourth class of cases destructive action as well as the healing process progressing simultaneously in different parts of the same sore are seen. In all cases the duration of the disease is extremely protracted and the affection seldom undergoes complete spontaneous cure. The diseased action always shows a tendency to spread from the groin downwards around the base of the scrotum to the perineum and anal region. The orifice of the urethra is very frequently implicated, as is also the anus. In both cases cicatricial contraction results and sometimes the result of these complications is that the patient succumbs.

In the description of the disease given in Manson's "Tropical Diseases" it is said that "it is practically confined to the pudendal region." This is not the case with the disease as seen in India, as I have myself met with two cases in which the oral cavity was affected as well as the groin. In one of these cases the inner surface of the cheek was implicated and in the other the inner surface of the lips, the gums, and the side of the tongue. The wife of one of these patients, who was seen by Captain Giffard, I.M.S., suffered from a similar affection of the mouth—a fact which strongly confirms the view of the contagious character of the disease.

One peculiar feature of the disease is the fact that the general health of the patient is hardly ever affected. The exceptions to this rule which I have met with have been those cases in which the mouth was affected and nutrition thus indirectly interfered with, and cases in which stricture of the orifice of the urethra and anus existed. On the other hand, when the general health of the patient becomes impaired through any other means the local affection is apt to assume a destructive character.

Dr. Conyers and Dr. Daniels, whilst admitting the possibility of a venereal origin in some cases, do not appear themselves to have met with any instances in which there was distinct proof of such being the case. They state that "in no case did the groin growth originate in a bubo." Indian experience, on the other hand, points to this as being the most usual mode of origin. My own observations lead me to believe that the disease is contagious, auto-inoculable, and in the majority of cases of venereal origin. In male patients it usually commences as an ulcer of the penis or a suppurating bubo. Amongst natives themselves the disease is considered to be venereal and so far as I have been able to ascertain all those surgeons in this country who have met with cases of the disease are of the same opinion. The disease is frequently diagnosed as syphilis but all the evidence which we possess is opposed to there being any connexion between the two disorders. The disease under discussion appears to be purely a local affection; it is never accompanied or followed by constitutional symptoms and its progress is entirely uninfluenced by anti-syphilitic remedies. At the same time it is probable that in some instances the two diseases are acquired simultaneously as the result of inoculation by mixed poisons, just as occurs in the case of syphilis and chancroid. Bearing this in mind and also the possibility of the existence of previously acquired syphilis it is easy to understand why these patients sometimes manifest signs of the latter disease. Much of the confusion in diagnosis which we hear of is doubtless due to the existence of these cases of mixed infection.

A point of particular interest in regard to the pathology of the disease is the fact that even in long-standing cases all the structures of the skin are not destroyed. An examination of the sore in many cases reveals the presence of short hairs piercing the mass of granulation tissue. This was seen in the case described above. Further evidence of the fact that many of the structures of the skin escape destruction is furnished by the results of the operation of erasion. In this operation all the granulation tissue is thoroughly scraped away and the resulting wound is cauterised with Vienna paste. Yet when healing action follows numerous islets of new epithelium spring up in various directions on the surface of the sore. In respect of this peculiarity and also in the appearance of the sore in its early stages the affection presents a remarkable resemblance to "yaws." So much is this the case that it would be difficult to distinguish the one from the other did the diagnosis at this stage depend entirely upon the physical characters of the sores themselves. In yaws, as is well known, the lesions are multiple and may be distributed over the whole surface of the body and not confined to one particular region, as in the case of this disease. Moreover, the sores never attain the same size in yaws as they do in the other affection. Dr. Galloway[2] states that there is a close histological resemblance between the two diseases.

In many of the cases cited by Dr. Conyers and Dr. Daniels the disease appears to have been complicated by an elephantoid condition of the affected region and Colonel Branfoot, I.M.S., who has met with a considerable number of cases amongst women in India, informs me that he has seen a similar complication in many of the patients who have come under his observation. There is no reason to believe, however, that such a condition is anything more than an accidental complication. In no case which has come under my observation has there been any changes resembling those seen in elephantiasis.

In regard to the incidence of the disease our experience in India coincides with that of surgeons in British Guiana. The disease appears to be confined to young adults or middle-aged persons and to be limited to the coloured races.

In the matter of treatment also there appears to be a coincidence of opinion between medical men in the two countries. The disease is seldom if ever influenced by any constitutional treatment or by the effects of any local applications. Thorough removal of the soft tissue by means of a sharp spoon, followed by the application of Vienna paste to the firm and fibrous-looking structures beneath, is sometimes followed by apparent cure, especially when the sore is limited to the region of the groin. Complete excision of the sore is more effective but cannot be effected in many instances. When the penis is implicated and the disease is of long standing amputation through healthy tissue should be performed.

Note by Dr. JAMES GALLOWAY.—Lieutenant-Colonel Maitland, I.M.S., has been good enough to send me portions of the affected skin and a neighbouring lymphatic gland removed from the patient whose case is described in this paper. The skin presents histological changes agreeing with those which I have already described in detail in the *British Journal of Dermatology*.[3] The portion of skin examined is in a later stage of the disease than the specimen from which my illustrations were drawn. The infiltration in the cutis is very dense and consists of cells of the same type as those described. The striking feature is the great masses of "plasma cells" and the absence of ordinary leucocytes. Much new and very dense cicatricial connective tissue is present transforming the cutis and breaking up the new cell-infiltration into separate masses. There is almost no tendency to liquefaction or any rapid degeneration in these masses of "plasma cells." Small areas are seen in which the cells present indistinct outlines, but in these the nuclei are fragmented and débris of chromatin granules is plentiful. Throughout the cutis the vessels are much dilated and in the lower part this change is so great as to simulate certain of the cutaneous angiomata. In the deeper layers of the skin and subcutis the glands are seen to be present with apparently healthy epithelium; some have undergone cystic dilatation. The epidermis of the surface is very thin and atrophied, but numerous peg-like processes of epithelium project down into the transformed cutis and possess apparently healthy epithelial cells. These are the relics of the long interpapillary processes of epithelium which form so striking a feature in the early stage of the disease, which is often papillomatous. The observations on these tissues corroborate the conclusions previously arrived at,

[2] Ulcerating Granuloma of the Pudenda (illustrated). British Journal of Dermatology, vol. ix., p. 133, 1897.

[3] Loc. cit.

that the disease is a chronic "infective granuloma" quite distinct from syphilis and tuberculosis, presenting certain histological peculiarities recalling the structure of frambœsia (yaws) but differing from this disease in its clinical course and general anatomical features and distribution. There can be no doubt that the disease described by Lieutenant-Colonel Maitland and Surgeon-Colonel K. Macleod in India is identical with the "groin ulceration" described by Dr. Conyers and Dr. Daniels in British Guiana.

Madras.

SOME CASES OF MALIGNANT DISEASE ASSOCIATED WITH OVARIAN TUMOURS.

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IN this paper I propose to record very briefly some cases of malignant disease associated with ovarian tumours. By "malignant disease" I mean either (1) that the tumours have been examined by competent microscopists and have been declared to be malignant in structure (carcinomatous or sarcomatous); or (2) that in addition to ovarian tumours growths have been found in the liver, peritoneum, or other organs when an operation has been performed; or (3) that such growths have developed later and have brought about the death of the patient. In most cases these secondary growths have been examined and found to be of malignant structure, but in some cases there has been no post-mortem examination. When I state the microscopic appearances of a tumour I do so on the authority of Mr. Targett or of Mr. Corrie Keep and I have to express my thanks to these gentlemen for permission to use their names.

It seems to me that the possibility of an ovarian tumour being malignant is not kept before the profession so prominently as its importance deserves. A large number of papers on ovariotomy are devoted to statistics of mortality, to showing how very easy and satisfactory the operation is, and to proving that the death-rate is very low. When these are the objects aimed at the papers may be published so soon after the patients have been operated upon that in a large proportion of the cases there has not been time for secondary growths to develop and, moreover, in discussing the mortality of an operation it is not necessary to bring forward other disagreeable sequelæ. Statistics having scientific value are most difficult to collect and on the question of malignancy in ovarian tumours it is almost impossible to obtain reliable figures. The number of cases which cannot be traced, the number of cases in which the cause of death is not verified by conclusive clinical or post-mortem evidence, and the long time which may elapse between the removal of a tumour and the development of malignant disease are difficulties which can hardly be completely overcome. The question requires many years of careful clinical and pathological work, every tumour being thoroughly investigated and every case being kept under observation for a long period—till death if possible—before even an approximate estimate of the percentage of malignant cases can be obtained. I regret that I have not paid special attention to this subject for more than a few years, its enormous importance having been gradually forced upon my attention. I therefore do not propose to record any statistics of my own. The following instances, are, however, sufficient to prove conclusively that in a number of cases the relationship between an ovarian tumour and malignancy is very intimate.

CASE 1.—On May 8th, 1888, I assisted Mr. Knowsley Thornton to remove a rapidly growing, very multilocular cystic ovarian tumour from a woman, aged 42 years. The growth was adherent to everything it touched. The uterus and left ovary were healthy. Mr. Thornton in his notes of the case wrote that the tumour "might be malignant." Three and a half months later (on August 23rd) I opened this patient's abdomen on account of obstruction of the bowels and I found several small round growths of from the size of a pea downwards and a mass of about the size of a Tangerine orange implicating two coils of small intestine. I was informed that this patient's father had died from cancer of the gullet at the age of 68 years. The father's sister had died from a cancer and his mother had died from a tumour. The case is already published in full.[1]

CASE 2.—I have published[2] another case in which I performed an easy ovariotomy on June 6th, 1893, the patient's age being 35 years. There were a few slight pelvic adhesions and I noted that there was a small piece of solid tissue in the base of the tumour. The patient had no trouble for more than two years after the operation. She then became very constipated and this difficulty increased rapidly. On Jan. 28th, 1896, I explored the abdomen, the bowel being then almost completely occluded. There were numerous growths studded over the peritoneum and large masses on the under surface of the liver. I made an intestinal fistula which gave temporary relief. A great aunt of this patient was said to have had cancer of the breast.

CASE 3.—On Oct. 8th, 1895, I saw a patient, 47 years of age, from whom Dr. Pregaldino of Ghent had removed a tumour of the right ovary which, he kindly informed me, was an adeno-carcinoma. The patient recovered from the operation quickly, put on flesh, and felt very well until a short time before I saw her when she began to suffer from pelvic pains and a vaginal discharge. She had the appearance of being in excellent health. I found a tumour on the left side of the uterus, rising above the pelvic brim, involving the cervix and fungating into the vagina. It seemed to me to be semi-cystic. It extended so far into the tissues on the left side of the pelvis that complete removal was impossible. The patient died nine months later.

CASE 4.—On Aug. 16th, 1892, I saw a patient with Mr. Crew of Higham Ferrers. She was 25 years of age and was supposed to be quite well on July 30th when she left her home on a visit to friends. She had noticed an enlargement of the body before this but had not spoken of it. On August 1st she was seized with severe pain in the abdomen and on the 11th a medical man said that she was so ill that she could not travel. It was, however, very desirable that she should go home and Mr. Crew therefore had her moved on the 12th. On the 16th she was very anæmic with a hectic temperature, profuse perspiration, and an extremely feeble and rapid pulse. There was a very tender pelvic swelling rising nearly to the level of the umbilicus. An opinion had been given that the swelling was a large abscess. I thought that it was most probably an ovarian tumour with a twisted pedicle, or possibly an inflamed dermoid ovarian tumour. If nothing were done the patient's death was certain, so I advised that the abdomen should be opened, although the conditions were most unfavourable for such treatment. On operating I found two ovarian tumours, each solid throughout, but they were both so soft that they broke up under the fingers and had to be removed piecemeal. There were extensive adhesions and much thickened omentum was cut away. The tissue of the broad ligaments was fairly firm where I tied them. After the operation the patient passed through a period of extreme feebleness, but I was able to send her a good nurse and under Mr. Crew's guidance a gradual improvement took place. The temperature was normal 12 days after the operation and the strength very slowly increased till November when she began to lose ground. I saw her on Nov. 17th. She then had a swelling in the right side of the pelvis which was very difficult to define on account of great intestinal distension. The breathing was rapid and there was a slightly impaired percussion note over the base of the left lung. No further symptoms developed and the patient died on the 24th. There was no post-mortem examination. The tumours were not examined microscopically, but I have no doubt that they were malignant and that infection had already passed beyond their margins before I operated.

CASE 5.—On Oct. 14th, 1892, I removed a multilocular ovarian tumour from a woman 60 years of age. The tumour contained much solid tissue and was firmly adherent to the anterior abdominal wall. I saw this patient eight months later and she was then dying with large masses of hard growth in her liver.

CASE 6.—On March 1st, 1892, I removed a tumour[3] which had every appearance of a simple ovarian cyst and contained no solid tissue except the cyst wall. This tumour was not adherent anywhere. The patient had also malignant disease

[1] THE LANCET, July 18th, 1891, p. 113.

[2] Twenty-six cases in which an abdominal section has been performed a second time, Case No. 7. Transactions of the Medical Society, vol. xx.

[3] THE LANCET, Sept. 8th, 1894, p. 573.

of the head of the pancreas. Her father's sister had died from cancer.

CASE 7.—Early in June, 1893, a patient was admitted under my care into the Samaritan Free Hospital for Women and Children with an ovarian tumour. She had been tapped a month before I saw her and again three weeks later. I arranged to operate on June 6th. The tumour refilled very quickly and on June 4th and 5th the patient vomited frequently and could take little food. The pulse which had been of good character and beating 84 to the minute rapidly rose to 120 and became very weak. There was no rise of temperature. The patient was so feeble that on the 6th I aspirated the tumour instead of operating. An immediate improvement followed, the pulse falling to 90 on the same day and the highest temperature after the tapping being 99·2° F. in the vagina. The patient seemed quite well and I decided to perform ovariotomy on June 13th. She was kept in bed and on the 10th she wrote several letters of a very cheerful tone. In the afternoon whilst reading a novel she was suddenly seized with pain in the chest and difficulty of breathing and she died within a quarter of an hour. There was much solid matter in the tumour which was firmly adherent to the anterior abdominal wall and there were two nodules of cancer in the liver.

CASE 8.—On May 19th, 1896, I removed an ovarian cystoma from a woman aged 37 years. There were considerable adhesions and there was much solid matter in the tumour. Three months later (in August) I saw this patient with large masses of growth in the upper part of the abdomen. She died in November of the same year.

CASE 9.—On Oct. 9th, 1897, I removed two semi-solid ovarian tumours from a woman, 53 years old. In the following August she had a recurrence in the upper abdomen and she died from obstruction of the intestines in October, 1898.

CASE 10.—On Nov. 4th, 1878, Mr. Knowsley Thornton removed an ovarian tumour from a woman 49 years of age. It consisted mainly of two cysts with a very thick septum. In one of the cysts there were "some small secondary masses sprouting up from the lining membrane." 19 years later (on July 24th, 1897) I removed a tumour of the left breast which was shown to be an ordinary carcinoma by microscopic examination. On May 8th, 1899, this patient had no recurrence and she said that her general health was better than it had been before the removal of the breast.

CASE 11.—On May 5th, 1899, I saw a patient with a tumour of the breast which clinically was a typical cancer. Mr. Knowsley Thornton had performed a double ovariotomy in 1880. I advised removal of the breast but I do not know the subsequent history.

CASE 12.—On Feb. 8th, 1893, I removed from a woman, aged 39 years, a tumour of the left ovary which was not adherent and which did not appear to show any signs of malignancy. Six years later (on March 10th, 1899) I removed a very adherent semi-solid tumour of the right ovary from the same patient. This was shown by microscopic examination to be a soft glandular-celled carcinoma. The vermiform appendix was very much swollen and hypertrophied, and so ragged after it was separated from the tumour that I removed this also. The patient died and no secondary deposits were found. This patient had suffered from much difficulty with the bowels for a long time after her first operation, due to adhesions about the colon which were found when the abdomen was reopened. She got better of this and married. She suffered from severe pelvic pains for fifteen months before the second operation and would not permit her medical attendant to examine her till she was compelled to do so by her serious condition.

CASE 13.—On Nov. 1st, 1897, I performed double ovariotomy on a patient, aged 44 years. There were already secondary growths in the peritoneum of the abdominal wall and in the omentum. The patient died with hard masses in the abdomen on Nov. 16th, 1898.

There is another way in which ovarian tumours are malignant and that is by direct extension of growth into neighbouring tissues.

CASE 14.—On March 22nd, 1898, I cut down on a very nodular ovarian tumour which was firmly fixed in the pelvis. It was held down by an enormously hypertrophied broad ligament which was tightly stretched across the upper surface of the growth. I divided this and shelled out the tumour. The rectum was opened in doing so. The patient died and it was found that the new tissue had infiltrated the wall of the bowel. Under the microscope the tumour was an adeno-carcinoma.

CASE 15.—On Feb. 4th, 1898, I began an operation which I thought would be a fairly simple ovariotomy. The tumour, which was ovarian, had a very broad base on the left side and there was a smaller cyst of the right ovary which had also a very broad base. I had to divide the tissues through new growth in removing these tumours. I could have got more away by taking the uterus also and by this means possibly all the primary growths might have been eradicated, but there also existed sub-peritoneal deposits quite separate from the ovarian tumours and uterus and I therefore did not think it right to do more than the double ovariotomy. The patient recovered from the operation but died about six months later.

CASE 16.—I operated on Jan. 14th, 1895, in another case in which there were two ovarian tumours. That on the left was closely incorporated with the uterus and deeply buried in the broad ligament, but seemed otherwise free. The right tumour was also deeply buried in the broad ligament and there were many adhesions on this side. A coil of intestine was adherent to and firmly stretched over the front of the tumour, the adhesions to it being thick and fleshy. I began to separate this coil, and in doing so exposed a piece of intestine into which a hard mass was growing from the tumour. This could not have been separated without a resection of the gut, and as there were many extensive adhesions behind and probably other resections would have been required I did not think it justifiable to persevere in removing the growth. The patient recovered from the operation. I have not been able to trace her subsequent history.

Such cases as this last one never, so far as I am aware, get into the statistics of ovariotomy, but these exploratory operations on ovarian tumours are very important whether from a scientific point of view or simply as a guide to the risk run by a patient who is told that she has an ovarian cystoma. The omission of such cases as this and the custom of putting the incomplete cases in separate lists or omitting them also from statistics of ovariotomy reduce the mortality of the operation, as sometimes published, much below the average risks run by a patient with an ovarian neoplasm.

There is another and still more difficult side to the question of malignancy in ovarian tumours. There can, I think, be no doubt that a complete and early removal of a cancerous growth—for instance, a scirrhus of the breast—does sometimes effect a permanent cure. There is no organ which can be more completely removed than an ovary which has developed a tumour and has a long pedicle but has not formed any adhesions, and very many ovarian tumours have sufficiently long attachments to allow of their complete extirpation. Under such circumstances it would not be remarkable if a tumour should be structurally and essentially malignant and yet should not return after removal.

It is sometimes said that an ovarian tumour arises simply from a dilatation of the Graafian follicles. In a few cases this may be so and in others the appearances might be considered as due to a dilatation of follicles together with a hypertrophy of the cyst walls. But in a large number of ovarian tumours there is an obvious development of new tissue which is of an adenomatous or papillomatous type. I believe it is quite hopeless to attempt to decide definitely from the naked-eye appearances whether a tumour of the ovary is malignant or not. Under the microscope adenomatous new growth is frequently found and this does not seem to tend to spread beyond the ovary or to recur when removed. In describing the structure of adeno-carcinoma Mr. Morrant Baker and Mr. Bowlby [4] state that in these tumours the tissues may be found arranged "after the manner of a simple tubular gland" and also "after the manner of a scirrhous cancer." They add that "between the latter typical carcinomatous structure and the adenomatous growth all intermediate steps may be readily traced." In his book on Tumours Mr. Bland Sutton [5] says that "cancer is best described as malignant adenoma." From the foregoing it seems to me that in the ovary there is no absolutely definite separation possible at present between innocent and malignant tumours, whether they are looked at from the standpoint of the surgeon or from that of the microscopist. I have for a short time endeavoured to get a report on the microscopic characters of every tumour which I have operated on,

[4] Heath's Dictionary of Surgery, p. 226.
[5] Tumours, Innocent and Malignant, p. 487.

and I hope that in this way interesting information may be obtained. I feel sure that every tumour should be examined. The case above recorded of an apparently simple ovarian tumour and cancer of the head of the pancreas would seem to indicate that even the most innocent-looking tumours of the ovary may be associated with cancerous formations. I do not discuss the question of the possibility that the ovarian tumour and the cancer may be independent phenomena occurring coincidently. The points which I wish to emphasise are that ovarian tumours are malignant in a considerable number of cases and that the gradations from innocent to malignant tumours are so insensible that it is not always easy, and perhaps not always possible, to separate them definitely.

A consideration of the foregoing cases leads to one conclusion so obvious that it might almost be considered unnecessary to state it—viz., that the removal of an ovarian tumour should be advised whenever its existence is diagnosed. This is undoubtedly the proper course to pursue and yet I sometimes see cases in which the existence of an ovarian tumour has been recognised for months or years and operation has been delayed until urgent symptoms have arisen. The dangers of the formation of adhesions, of twisting of the pedicle, of the occurrence of pregnancy, of the development of suppuration, &c., should urge the surgeon to immediate action. But of all the arguments in favour of early operation the possibility that the tumour may be malignant, or that it may become malignant, seems to me to be the most forcible and urgent and at the same time the least considered.

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ON THE DANGER OF HIGH ALTITUDES FOR PATIENTS AFFECTED WITH ARTERIO-SCLEROSIS.

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WE are living in days when the struggle of life and therefore the strain on our nerve power grow more and more intense. To counteract these detrimental conditions changes of scene and air at seaside and Alpine health resorts have to play their part and no one better than the weary practitioner can estimate the value of even a couple of days' rest thus indicated as a necessity to prevent a breakdown. But the practice of patients going up to Alpine heights without medical advice has its grave dangers which year by year come more clearly to my view and into which a long practice at Alpine health resorts has given me a good insight. The public are careless, almost reckless, in this matter; they often disregard judicious medical advice, with the result that serious or even irreparable damage may be done, and sometimes death ensues—a catastrophe easy to be predicted by a careful family physician.

The public, and sometimes the inexperienced physician—inexperienced not in general therapeutics but in the physiological effects of altitude on a weak heart—make light of a danger they cannot understand. But if an altitude of from 4000 to 5000 feet above the sea-level puts a certain amount of strain on a normal heart and by a rise of the blood-pressure indirectly also on the small peripheral arteries, must not this action be multiplied in the case of a heart suffering from even an early stage of myocarditis or in the case of arteries with thickened or even calcified walls?

It is especially the rapidity of the change from one altitude to another with differences of from 3000 to 4000 feet which must be considered. There is a call made on the contractibility of the small arteries on the one hand and on the amount of muscular force of the heart on the other hand, and if the structures in question cannot respond to this call rupture of an artery or dilatation of the heart may ensue. In the case of a normal condition of the circulatory organs little harm is done beyond some transient discomfort, such as dizziness, buzzing in the ears, palpitation, general malaise, and this often only in the case of people totally unaccustomed to high altitudes. For such it is desirable to take the high altitude by degrees in two or three stages, say first stage 1500 feet, second stage from 2500 to 3000 feet, and third stage from 4000 to 6000 feet, with a stay of one or two days at the intermediate places. The stay at the health resort will be shortened, it is true, but the patient will derive more benefit. On the return journey one short stay at one intermediate place will suffice. Even a fairly strong heart will not stand an overstrain in the first days spent at a high altitude. A Dutch lady, about 40 years of age, who had spent a lifetime in the lowlands, came directly up to Adelboden (altitude 4600 feet). After two days she went on an excursion with a party up to an Alp 7000 feet high, making the ascent quite slowly in four hours. Sudden heart syncope ensued, which lasted the best part of an hour, though I chanced to be near and could give assistance, which was urgently needed. The patient recovered, but derived no benefit from a fortnight's stay, and had to return to the low ground the worse for her trip and her inconsiderate enterprise.

Patients between the ages of 45 and 70 years who are the subjects of arterio-sclerosis can often stand altitudes of 4000 feet and higher; this depends on the degree of the sclerotic process and especially on the localisation, though patients in advanced stages all do better at altitudes of not over 3000 feet, and the reason is fairly simple. Take Engelberg, for instance, which corresponds to this height; it is obvious that the patient will want to go for walks and that not only on level paths. He will soon get to altitudes of from 4000 to 5000 feet, even if warned to keep from climbing; if sent to a place already 4000 feet high he will take walks up to 5000 and 6000 feet and damage may ensue, for if in company one cannot always choose the pace one wishes. I have had patients with arterio-sclerosis coming year after year to Adelboden (4600 feet) and only after four or five years symptoms would ensue, and I was obliged, not actually to send the patients away, but to confine them to the level walks. In a couple of years the same patients will have to choose an altitude not above 3000 feet if they are to derive benefit. The question must in each case be answered separately and only general rules can be laid down. Patients with arterio-sclerosis should not attempt a residence at a high altitude without medical advice. The family medical attendant is the best judge of the possibility of danger, but sometimes nothing short of a trial will decide, and the patient must be put under the care of a medical man at the health resort in question.

In any case the patient should take medical advice if symptoms show themselves, such as sleeplessness, dyspepsia, giddiness, buzzing in the ears, palpitation, paræsthesia, shortness of breath, or definite slight angina pectoris. If I have to decide the question in Zurich the altitude of the place (1400 feet) comes to my assistance and by letting the patient ascend the hills around up to 3000 feet, combined with an examination of the blood-pressure by means of the Riva-Rocci sphygmomanometer, I can arrive at a safe opinion on the advisability of a stay above an altitude of 3000 feet. Rapid ascents to a high altitude are very injurious to patients with arterio-sclerosis and the mountain railways up to 7000 feet and 10,000 feet are positively dangerous to an unsuspecting public, for many persons between the ages of 55 and 70 years consider themselves to be hale and healthy and are quite unconscious of having advanced arterio-sclerosis and perchance contracted kidneys. An American gentleman, aged 58 years, was under my care for slight symptoms of angina pectoris pointing to sclerosis of the coronary arteries. A two-months' course of treatment at Zurich with massage, baths, and proper exercise and diet did away with all the symptoms. I saw him by chance some months later. "My son is going to St. Moritz (6000 feet) for the summer," said he; "may I go with him?" "Most certainly not," was my answer. The patient then consulted a professor who allowed him to go. Circumstances, however, took him for the summer to Sachseln, which is situated at an altitude of only 2000 feet, and he spent a good summer. But he must needs go up the Pilatus by rail (7000 feet), relying on the professor's permission, and the result was disastrous, for he almost died from a violent attack of angina pectoris on the night of his return from the Pilatus and vowed on his return to Zurich to keep under 3000 feet in future.

I may here mention that bad results in the shape of heart collapse, angina pectoris, cardiac asthma, and last, not least, apoplexy, often occur only on the return to the lowlands and that patients with cirrhotic kidneys are in the greatest danger. In the case of apoplexy it is generally the combined influence of a few things slight in

themselves which added to the detrimental effect of the high altitude produce the fatal result. Over-exertion immediately after reaching the Alpine resort, over-feeding, an unusual amount of alcohol, exposure to a hot sun, sometimes constipation neglected for a couple of days, play their part. The physician is called in to a hopeless case, a valuable life is shortened by some years—avoidably so—and there lies the peculiar sadness of such cases. Patients suffering from arterio-sclerosis at whatever altitude they may be should be kept on an almost vegetarian diet with sufficient mineral water, such as Vichy, Passugg, and Seltzer. They should be restricted in respect of alcohol and strong tea or coffee, and, above all their walks on hot days must be limited to the hours between 8 and 10 A.M. and from 4 to 7 P.M. The heat of the sun on the Alps health resorts is often doubled in comparison with the lowlands, especially in shut-up valleys where the reflection of heat from the rocks and glaciers and snow-covered mountains is intensified in the rarefied air. Few people have any consideration for these facts. The hours between 10 A.M. and 4 P.M. on a hot day should be spent on a cool balcony or in the shade of woods which are in most cases easy of access.

These remarks, suggested by a lengthened experience of the effect of altitude on healthy and weak constitutions, are written in the hope that they may be the means of directing apparently healthy elderly patients to select an altitude where they risk nothing and can derive great benefit.

Zurich.

EVOLUTION OF THE LINES OF SIGHT.

BY CHALMERS PRENTICE, M.D.

THE eyes of herbivorous animals generally look outward from each other. A large proportion of such animals are unable to look at an object with both eyes at the same time, because the lines of vision, optic axes, diverge from each other. In some birds the eyes are so situated that they look in opposite directions, or nearly so. Birds and beasts with such divergent eyes present the side of the head to an object to get the best view of it; also they are of a milder disposition, with small means of self-defence except their wide range of vision which gives them timely warning of approaching danger. The eyes of carnivorous animals are in such a relative position that the "lines of sight" are not nearly so divergent as they are in the herbivora; their relation is such that by a contraction of the internal rectus muscles they are rotated inward, so that both eyes can centre their vision on a single point at the same time, thus increasing the impact and sense of vision in the nerve centres. This class of animals have nervous, irritable, and sometimes vicious dispositions; they kill and live upon their prey. Their field of vision is not so extensive as that of herbivorous animals, but this deficiency is made up for by their exceeding activity and physical combative powers. The eyes of animals having single binocular vision have a tendency to diverge and are only held in visual alignment by a contraction of the internal rectus muscles. For many years past I have frequently interested myself by observing the eyes of lions, tigers, and other carnivorous animals as they lay half asleep on dull lazy days, languidly closing and opening their eyes. As the eyes opened I was able to observe a slight, quick, converging movement, small, but perceptible in a majority of cases, especially in the older and lazier beasts. After death there is a considerable divergence of the eyes in all such animals.

In the summer of 1895 I opened an inquiry with 10 zoological gardens- and animal-keepers whose observations verified the above statements in main particulars. As a result of this inquiry I learned of but two cross-eyed carnivorous animals—so small a percentage that it has no bearing on my general conclusion. In 1893, with the assistance of the United States Army Department of the West, I secured examinations of 1000 North American Indians. The test consisted of a prism, base down, before one of the eyes, creating vertical diplopia. There was a general tendency of the eyes to diverge. A similar examination of 800 uncivilised African negroes showed the same tendency. In making the above examination of 1800 aboriginals three cases of convergent strabismus were met with among the Africans.

The eyes of new-born babes are hyperopic; they lack refractive power, while the optic axes are seldom if ever straight. The eyes of these little ones give us no accurate data of the relative anatomical lengths of the eye muscles or the amount of insufficient magnifying power of the eyes, for the reason that the energy-impulses which correct these anatomical defects are inherited and at work before birth, so that without ever having seen the light of day these little ones enter the world with eye-strain of various degrees. An observation of many years, which I think will be concurred in generally, leads me to the conclusion that when eyes once straight go blind they turn outward. Eyes lose their proper axial relation under various states of insensibility, excepting sleep. When we reach men of civilisation this general tendency to diverge seems to have changed into a tendency to converge; it only seems, and is not due to anatomical shortness of the internal muscles, but to a tonic, fixed spasm or innervation of them.[1] It is a functional convergence which in death or blindness changes into a divergent condition. As early as possible all such anatomical defects are compensated for by nerve-strain which pulls the eyes into proper axial alignment and increases the deficient magnifying power or refraction by squeezing the periphery of the crystalline lens, thus increasing its convexities.

Those following the various pursuits of civilisation a great share of the time have their eyes fixed on near objects—for illustration, say, 13 inches or three dioptres. The refraction of the crystalline lens has to be increased three dioptres, 13 inches, and the eyes converged many degrees, which is accomplished by the excessive use of brain energy or nerve-strain. In various pursuits these positions and strains are kept up day after day for months and years, until the strain or nerve impulses will not easily and completely suspend themselves when the person seeks for distant vision, and then we have a tending inward of the eyes and sometimes myopia. When we think of it we can see what excessive nerve-strains such persons are relieved of by change of scene into the open country. The strains which keep up many degrees of convergence and about 13 inches of refraction are for the time being relaxed and thus the nerve-centres are much relieved. This may be a greater factor of relief to nervous persons than the so-called "change of air."

No tests are effective in showing the anatomical defects that necessitate brain-strain to bring about good vision, for two reasons: first, nerve impulses that have been kept up for years become persistent and will not suspend during tests; secondly, the various muscles and parts become more firmly fixed in their assumed shapes by the material deposits under the nutrition of the high innervation and their shapes and positions are statically fixed for the time being. Some eight years ago it occurred to me that the eyes of the dead would come nearer showing the true anatomical condition, but not absolutely, owing to the material deposits just mentioned, so I instituted an investigation of the eyes of the dead in morgues, deadhouses, and other places. I have thus obtained a record of over 3000 cases. In from 24 to 48 hours after death the eyes turn outward from each other almost without exception. Sometimes one eye turns up more than the other; again, both eyes may turn upward and outward. I have not in any single case seen eyes in the dead which appeared to me to be perfectly straight. I have examined by "retinoscopy" 364 subjects as to the refraction with the average result of about four dioptres of hypermetropia, varying from two to 10 dioptres, excepting three cases of axial myopia. I exerted some pressure on the sides of the eyes so that any flattening of the cornea due to death might not affect the results. My improvised retinoscope consisted of pasteboard tubes joined at proper angles to get the light through one and to reflect it to the eye through the other; this made my distances invariable and much facilitated my work. During the space of 20 years I have examined the same people before and after death to the extent of 17 in number and have found their vision normal and the alignment of the optic axis perfect during life, but after death all of these eyes were hypermetropic and divergent.

The above facts lead me to the conclusion that the eyes of man are in a state of evolution as yet incomplete, requiring nerve-energy or eye-strain to bring about normal vision. This strain would be variable and not in any relation to the amount of axial deviation. Two cases having the same amount of deviation might vary in strain as one to 100.

[1] Strabismus Theories, New York Journal, July 24th, 1897.

In one case the external muscles which are stretched in drawing the eyes into line are thin and narrow, yielding readily; in the other they are broad, thick, and tendinous, offering much greater resistance, so the amount of deviation or anatomical defect does not determine the stress or strain. If this evolution of the optic axis was complete there would be no eye-strain and the energy now required to sustain it could be utilised in performing other functions more perfectly, thus adding comfort and years to life. How much this strain is, or how much life is shortened and our peace and happiness are disturbed by it, is impossible to calculate, but it must be great from the fact that the nerve centres of vision are so extensive—in fact they are many times greater in area than those which furnish energy for our legs, and the legs may use more than a million foot-pounds of energy in a day.

ON THE EFFECTS OF PRIMULA OBCONICA ON THE SKIN.

BY ROBERT KIRK, M.D. EDIN., F.F.P.S. GLASG.,
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IN THE LANCET of March 4th, 1899, I recorded a case of myxœdema in which the irritant principle of primula obconica was suspected of having given rise to severe stomatitis and an acute eczematous eruption on the skin. Having now made a few experiments with this plant and having found the results of more interest than I could have anticipated I here propose briefly to notice them.

I first of all began with an experiment on myself by rubbing a small part of the leaf of a primula on the inner aspect of the forearm for a few minutes. No effect ensuing I repeated the process three or four days afterwards, employing more vigorous and prolonged friction. This still remaining without result I rubbed the leaf against the skin on a third occasion by means of a flat bottle containing hot water so as to make sure of breaking up the glandular hairs in which the irritant has been supposed to reside and to increase its effect by the heat if it were a volatile body like toxicodendric acid. Still the result was *nil*. Becoming now more confident I ventured to apply the leaf on several patients by gentle rubbing but without any result in a single instance. In the course of these experiments I had a visit from the myxœdematous patient whose case was recorded in my former paper and in her presence I rubbed a part of the leaf several inches square against the skin of my forearm for 10 minutes by means of the hot-water bottle as above described. She looked on with astonishment, but said that she would try it once more to convince me. She then took a small part of a primula leaf barely an inch square and with a gloved finger of her right hand rubbed it gently on the inner aspect of her left forearm for not more than a few seconds and then did the same with a few blossoms of the plant on a spot at a little distance remarking that she thought that would do. I should here state that only two days before she had recommenced taking thyroid tabloids after an interval of several weeks during which the use of them had been left off and at the end of which she had swollen perceptibly. Next morning, feeling no effect on myself, I thought no more of the matter until I received a visit from the lady in the evening. I was now surprised to learn that she had not slept since two o'clock in the morning on account of a hot and tingling sensation in the sites of the application and I could scarcely believe the evidence of my senses when I saw that these were the seat of redness and inflammation, this being most marked on the part to which the leaf had been applied, where one border was distinctly raised above the surrounding skin. I applied some belladonna ointment, but the smarting getting worse on the same evening she washed it off, thinking it was doing harm. On the next day I found that the inflammation had subsided a little, but on the following afternoon a crop of vesicles appeared on the site where the blossoms had been applied, although the inflammatory symptoms had throughout been least pronounced there. Some of the vesicles had coalesced and it appeared that if the application had been more prolonged the result would have been a single bulla over the entire area. I punctured some of the vesicles, when a little thin serum exuded and flowed freely over the arm. I left the patient in the belief that the effects were at an end, but fortunately, although she had not sent for me, I chanced to call upon her a week afterwards when another surprise was in store for me. Both areas were now raw and emitting copiously at various points a thin, pale, watery serum, which showed no tendency to coagulate. She stated that the site of application of the primula blossoms had never ceased to discharge since I had punctured it and that the other surface had risen in blisters two days or so afterwards and had broken and become ulcerated as I now saw it. Both surfaces were itchy and irritable, and she said that she had found the application of very hot water give her more relief than anything else. The parts healed up a few days later and the patient was positive that this had been mainly due to the applications of hot water which perhaps had tended to coagulate the proteids in the effused serum. They were now covered by a pale brown epidermis resembling a scab, which was interspersed here and there with silvery streaks of whitened scales.

In the course of these observations I had continued experiments upon myself, being convinced that the difference between this patient and other individuals could be only one of degree. Accordingly I next scratched my skin gently as in the operation of vaccination and rubbed a part of the leaf of a primula firmly on by means of a spatula for five minutes and as no effect appeared in two days I repeated the process with several blossoms on the same spot but without refreshening it. This remaining equally without effect I finally increased the raw area by scratching round its circumference and after rubbing on the flowers as before retained them in position overnight by two strips of adhesive plaster arranged crosswise. On removing these next morning the surface beneath was pale, no doubt from pressure. The same evening I was gratified to find some appearance of inflammation with a sense of heat and itching and next day a few small vesicles actually made their appearance. On puncturing these some serum escaped but not more than a drop or two and it was very different in character from that in the case of the patient whose symptoms I have described, for it was slightly yellowish, viscid, and highly coagulable. On applying some cotton-wool and removing it a few hours afterwards I found some fibres of it sticking to the surface which was now practically healed. A scab or two now formed and did not drop off till the tenth day and, what is more interesting, a red areola developed which was at first of a punctate appearance, but gradually became uniform. This continued to spread till the ninth or tenth day and was always itchy, especially at night. It was most marked at parts where it showed most tendency to spread, but was never very severe, so that it was not difficult to resist any desire to scratch. There never was any induration or any elevation of the surface and no constitutional effects were manifested in either of the two cases. I may add that one evening when my arm was itching and I thought the effects had reached a climax I applied thyroid extract over it with the effect of obtaining almost complete relief after a few minutes' smarting and some considerations lead me to suppose that it would have been a good application to the ulcerated surface in the myxœdematous patient.

A further observation remains to be stated. In my earliest experiments I had one evening applied part of a primula leaf over the pit of the stomach and this also seemed to have no effect, but 10 days afterwards my attention was called to the part by a feeling of tenderness and itching and on inspection it was found to be reddened. It continued red and itchy for two weeks afterwards. Besides this two reddish and itchy spots appeared on the arm not far from the site of application there, to which the irritant had evidently been carried by the movements of the investing sleeve of flannel. It now seemed to me certain that it could not be a chemical compound which had produced these effects on myself and singled out a special constitutional state in such an extraordinary manner as I had just witnessed. Moreover, in the course of the inquiry I had twice made a cold infusion of both the leaves and the blossoms, and found that neither of them yielded to water any free acid whatever, at least any that could be detected by test paper. I could hardly resist the conviction that these effects could only be explained by the action of some germ or micro-organism derived from the plant and I ventured to express this suspicion to two of the pathologists of the Glasgow Western Infirmary to whom I showed my

arm and gave a sample of the leaves and blossoms, expressing a hope that they would investigate the matter.

Through the kindness of Mr. Dewar of the Botanic Gardens of Glasgow, who has banished this primula from the grounds, and of Mr. McIver of Camphill Gardens, to whom I am further indebted for some fine specimens of the plant, I had the opportunity of seeing two of the employés who had suffered from its irritant action. They were both of a somewhat bulky and flabby build, one of them more especially who dared not even touch the plant. There can be no doubt that it might prove of value in diagnosing constitutional conditions, as I have previously suggested, and it would seem that the effects could be easily kept under control. The extreme vulnerability of the above patient readily explains the proneness of myxœdematous and other subjects to fall an easy prey to invading organisms, as those of erysipelas and other diseases. Nay, more, it seems to carry us even a step further than this. The patient in the case which I have described did not show any sign of myxœdema until the age of 28 years, but she was the sister of an athyroid cretin, and there is reason for supposing that she inherited a diathesis which was the prime factor in the evolution of the later morbid manifestation. Indeed, I had learned a few years before that vaccination in her infancy had produced results closely analogous to those so recently observed from the application of primula obconica. This passed unheeded at the time, but a second case of a similar kind has lately come under my notice and the influence of a constitutional diathesis on the course of vaccination is a subject to which I hope shortly to call attention.

Glasgow.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF IRREDUCIBLE SCROTAL HERNIA (IN AN OLD MAN) CONTAINING THE APPENDIX VERMIFORMIS; OPERATION FOR RADICAL CURE.

(Under the care of Mr. W. H. BATTLE.)

IN the Mirror of Hospital Practice on May 6th we were able to present two cases of the rare condition, femoral hernia in which the vermiform appendix was the sole occupant of the sac. The case recorded below is an instance of an appendix occurring in an inguinal hernia, alone except for a mass of omentum with which it was closely connected. In both femoral and inguinal herniæ the vermiform appendix is usually accompanied by the cæcum or other portions of bowel, and the rarity of this and the other cases consists in the fact that the appendix was the sole occupant of the sac.

A man, aged 73 years, was admitted into St. Thomas's Hospital on Oct. 3rd, 1897, with an irreducible scrotal hernia. He had had a rupture on the right side for 16 years and had worn a double truss, although there was no evidence of rupture on the other side. Six weeks before admission he had fallen down and ever since had had a swelling in the right scrotum. This swelling was evidently omental, without impulse and irreducible. It was very hard, especially in the lower part, and below this was a collection of fluid. No improvement followed rest in bed and it was necessary for a time to pass a catheter three times a day to relieve retention of urine. As there was no improvement in the hernia and his general condition was good in spite of his age it was decided to perform an operation for radical cure.

At this operation on Nov. 24th the sac was found to be occupied by adherent omentum, below which was the collection of fluid forming a hydrocele of the hernial sac. During the process of division of the omentum the appendix was found to be adherent at its extremity in the thickened omentum. This was divided by the usual method. The division and ligature in bundles of the omentum were completed and afterwards the sac was separated and removed with the end of the omentum still adherent to it. The opening of the sac was then sutured. The abdominal rings were closed with silk by Bassini's method and the superficial wound was closed with horsehair stitches. No drainage was employed. On Dec. 2nd the superficial sutures were removed; there had been no rise of temperature. The patient left the hospital for Swanley Convalescent Home on Dec. 8th.

Remarks by Mr. BATTLE.—In this case the hernia was irreducible and painful so that the man could not wear a truss. There was no reason for suspecting the presence of any portion of bowel in the swelling and the appendix was only recognised as the healthy part of the protruded omentum was divided in order to permit of the inflamed and thickened part being removed with the sac to which it was adherent. This is undoubtedly the quickest and best way of removing diseased and adherent omentum. The age of the patient was not regarded as a bar to operation and he was not a bad subject for it. There had been catarrhal inflammation of the appendix and adhesion to surrounding structures, but it is probable that the protrusion occurred after the inflammatory attack, the surrounding of the appendix by the omentum having prevented a more serious inflammation of the peritoneum.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

A CASE OF PERFORATION OF THE BLADDER CAUSING PERITONITIS AND DEATH.

(Under the care of Dr. R. LANE JOYNT and Dr. ARTHUR STANLEY GREEN.)

IT was beyond doubt impossible in the following case to make an exact diagnosis during life of the condition present, and the patient unfortunately declined the operation which was suggested and which would have cleared up the diagnosis. It is by no means improbable that the scar in the bladder was the result of the healing of a tuberculous ulcer, and if this were so the adhesion between the bladder and the sigmoid flexure is easily understood.

A man, aged 29 years, was admitted into the Meath Hospital at 2 A.M. on May 16th, 1899, suffering from retention of urine. It was stated that about nine years ago a load of stones fell on to the patient's abdomen; he was taken to a hospital where a catheter was tied in for three days and he was detained for four weeks. A year later he had an attack of retention of urine and was detained in a hospital for three days; a few months after this he again had retention of urine. He joined the army, served in India, and had malaria, but no further attack of retention of urine occurred until 1895, when he "went on the spree," again having retention of urine as well as contracting typhoid fever. There was an indefinite history of gonorrhœa and from that time repeated attacks of retention of urine had taken place together with difficulty of defecation which was always relieved by the long tube and was on some occasions accompanied by persistent vomiting. In 1897 in South Africa the patient struck his abdomen against the tail of a cart and immediately following this had an attack similar to the foregoing. At Christmas last he was again in hospital with another and worse attack of retention of urine, intestinal obstruction, and vomiting. He stated that between the attacks he was in perfect health and worked as a set-maker on the tramways. On admission to hospital in his last illness a No. 9 gum elastic catheter without stylet was passed, urine was drawn off, and no evidence of any constriction was found. An enema and five grains of calomel had no effect and the catheter had to be used frequently for two days. The long tube was also used at intervals and always brought away fæces and flatus. After this till the death of the patient (a period of three and a half days) he passed urine normally which was found to be free from blood, pus, sugar, and albumin, was acid in reaction, and contained no trace of indican. The abdomen was tense and tender, without marked points of pain or visible peristalsis; there was slight dulness in the flanks. The liver dulness was normal in area but displaced upwards. Marked tympanites was present. Vomiting began three days after the patient's admission to the

hospital; it was very distressing and continued to the end. The colour of the vomited material changed from green to brown; there was never any fæcal smell and the vomiting could not be stopped. The tongue from start to finish was moist and clean and there was no odour from the breath or sordes. Two days before death hiccough developed. The pulse varied from 60 to 100 and was always strong and of high tension. The temperature gradually rose till the third day when it reached 100° F. and afterwards gradually fell to 96·2° on the seventh day and never again rose to normal. The patient's aspect was clear and singularly unlike that of an intestinal case. He was able to move about, was quite clear in his mind, and refused all operative interference, saying that he had always got over similar attacks before. On the evening of the ninth day his pulse suddenly failed and one hour before death he had a convulsive seizure from which he recovered and passed gradually into a comatose condition.

Necropsy.—At the post-mortem examination it was found that the abdominal cavity was full of urine, the intestines being congested, especially the sigmoid flexure and the last 10 inches of the ileum. The appendix was perfectly healthy and no constriction of any kind was found throughout the entire length of the alimentary canal. On the fundus of the bladder a perforation was found in the centre of a cicatrix over half an inch in thickness with a second old depressed cicatrix on the mucous surface of the bladder. The aperture had been closed by an adhesion to the sigmoid flexure, as was evidenced by a few remaining adhesions and the corresponding marks on both bladder and gut. The remainder of the bladder was quite healthy.

Remarks by Dr. JOYNT *and* Dr. GREEN.—The above case is of interest owing to the difficulty of diagnosis. Attention was directed mainly to the symptoms of obstruction which, however, was never absolute, and as the patient had been able to take or retain only a small quantity of fluid and had passed unaided a reasonable quantity of urine no estimation was made of the total quantity of urine which was passed daily. The nature of the vomited material and the patient's aspect and liveliness were not in keeping with anything but a very chronic condition. Undoubtedly the only correct surgical procedure would have been an early laparotomy, but this, unfortunately, was refused. As to the cause of the perforation which was in the centre of an old cicatrix it would be hard to give a definite opinion. The patient had met with two severe abdominal injuries either of which might have caused intra-peritoneal rupture of the bladder, the wound being subsequently closed by adhesion of the sigmoid flexure. Beyond this there was no other sign of old inflammation of the peritoneum which there probably would have been had there been extensive leakage of urine. The patient was on three separate occasions sounded for stone in various hospitals, so that his symptoms must at some time have pointed to calculus; none, however, was found nor was any operation undertaken, and it is most improbable that the bladder was perforated by the injudicious use of instruments. The difficulty of defecation can be explained by the kink in the sigmoid flexure. Possibly over-distension of the bladder may have caused the adhesion closing the aperture to give way.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF ANKYLOSIS OF THE RIGHT TEMPORO-MAXILLARY ARTICULATION; EXCISION OF THE RIGHT CONDYLE; RECOVERY.

(Under the care of Mr. FREDERICK PAGE.)

FIXATION of the lower jaw can be treated either by excision of the condyle or by Esmarch's operation of removal of a wedge of bone from the body of the mandible. Esmarch's operation is more applicable to cases where the fixation is due to cicatricial contraction.[1] Resection of the condyle for bony ankylosis was first performed by Gross of Philadelphia in 1874, though the condyle had been removed 20 years earlier for osteo-arthritis. The operation is far from difficult and the only complication which is likely to follow it is paralysis of the facial nerve.

In January, 1898, a young man was sent by Mr. R. Taylor Manson of Darlington to the Royal Infirmary, Newcastle-on-Tyne, suffering from inability to open his mouth beyond the extent shown in Fig. 1. The fixation was due to ankylosis the result of suppurative inflammation of the

FIG. 1.

right temporo-maxillary articulation and the condition was one of great discomfort and inconvenience. The right condyle was excised by a transverse incision when the mouth could at once be fully opened. Fig. 2 is a reproduction

FIG. 2.

of a photograph which was taken eight months after the operation and shows the very satisfactory result which this simple operation gives.

Remarks by Mr. PAGE.—I believe that excision of the condyle is by far the best method of treating ankylosis of the temporo-maxillary articulation and this is the third case which I have published of a successful result.

[1] Die Behandlung des narbigen Kieferklemme durch Bildung eines künstlichen Gelenkes um Unterkiefer, Kiel, 1860.

DANGEROUS FEEDING BOTTLES. — An inquest was held at Bath on June 7th respecting the death of an infant, aged six months. The mother had taken the child to a medical practitioner and also to the hospital, as she believed the infant had swallowed the regulator on the tube of the feeding bottle. Nothing, however, could be discovered, but two days later the child was admitted into the institution suffering from an obstruction of the larynx. Tracheotomy was performed and the regulator was found firmly fixed in the back of the throat. A verdict of "Accidental death" was returned.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Assam Epidemic Malarial Fever.—The Remote Prognosis of Pericarditis.

A MEETING of this society was held on June 13th, Mr. BRYANT, the President, being in the chair.

Mr. PEARCE GOULD read for Dr. LEONARD ROGERS a paper on the Results of Segregation of Cases and Moving from Infected Sites in eradicating the Assam Epidemic Malarial Fever, or Kala-azar.—In a paper read before the society in March, 1898, Dr. Rogers had given a summary of his investigation of the Assam epidemic malarial fever, locally known under the name of kala-azar. He argued that this was an intensified form of malarial fever which, after a succession of very unhealthy years due to extraordinary seasonal conditions, had attained the power of being slowly communicable, usually in an indirect manner, from person to person. Dr. Rogers now presented the results of the carrying out of his recommendations for the eradication of the disease which were based on the above view and believed that the success which had attended the measures advised by him lent considerable support to his conclusions. His recommendations were briefly as follows: (1) all newly imported coolies should be placed in fresh lines and not allowed to enter old infected ones; (2) in slightly infected lines all infected persons, together with their households, should be moved out into separate segregation lines and the huts which they have inhabited should be burnt and not rebuilt; (3) in badly infected lines all the healthy people should be moved out during the dry cold weather months when infection was at a minimum and placed in new lines, while the infected persons and their households should be segregated and the infected line abandoned. The results which have followed the adoption of these measures on various infected tea-gardens in Assam show that they have been successful in actual practice as far as tea-gardens are concerned, and that this disease which hitherto has carried off from 70 to 90 per cent. of those attacked may now be regarded as controllable.

Dr. JAMES H. SEQUEIRA read a paper on the Remote Prognosis of Pericarditis. After a review of the previous work upon the prognosis of pericarditis Dr. Sequeira considered the investigation of the functions of the pericardium by Barnard and Leonard Hill which showed that the pericardium acts as a support to the heart during muscular exertion. This recent work appeared to throw so much light upon the effects of pericarditis that the whole subject of the remote prognosis of the disease, and especially of its sequel, adherent pericardium, seemed to need reconsideration. It occurred to Dr. Sequeira that if, as a result of inflammation, the pericardium were softened and dilated the protective support afforded to the chambers of the heart during muscular exertion, strains, and the like would be lost and that the heart might therefore dilate and fail at once. If, on the other hand, the pericardium were dilated and then became adherent to the chest wall, the fact that the heart was working in a dilated sac introduced factors which could only tend to the frequent failure of compensation; but if the pericardial sac was undilated the presence of adhesions was of little moment. In that way the problems presented by the consideration of the different clinical features shown by cases of adherent pericardium could be explained. To ascertain how far these surmises were correct he had traced the after-history of 130 cases known to have had acute pericarditis. Of these he had personally examined 100 often at frequent intervals. There were 43 deaths among the cases traced and he had obtained details of the post-mortem appearances in the majority and had been present at the necropsy wherever possible. Clinically the cases fell into three groups: (1) those in which there was perfect compensation of the heart; (2) those in which compensation was easily broken; and (3) those in which compensation never occurred. In the first group there were 31 cases. All the patients were over 14 years of age. The pericardium was undilated; there were no symptoms and practically no physical signs. In the second group there were 86 cases. The young patients, and especially the young females, formed the bulk. There were all gradations in the severity of the symptoms. Many of the patients were in and out of hospital for years, while in some compensation occurred once only. In the young females (from six to 15 years old at the time of the acute attack) death occurred on the average in little over two years. In the males, in whom the original attack occurred between the same ages, the average length of life was three and a quarter years. The extremes were, of course, very wide of this. In the fatal cases the pericardium was found to be dilated and adherent and the severity of the symptoms depended in great measure upon the amount of the dilatation. Dr. Sequeira had found that there was an interesting relation between the annual increase in the body weight and the age at which death took place in the cases in which the acute attack occurred in early childhood. In the third group of cases, 13 in number, compensation was never complete. In some this depended upon the fact that the dilatation of the pericardium was progressive. The patients were all young and death resulted in from three to nine months after the acute attack. The effect of concomitant valvular disease and of myocarditis was considered and Dr. Sequeira concluded that valvular lesions were of little moment in many cases and that myocardial degeneration could not induce the enormous dilatation of the heart so often observed if the pericardium were undilated. Further, the amount of hypertrophy of the heart in cases of adherent pericardium appeared to be in the main dependent upon the amount of dilatation of the cardiac envelope. Dr. Sequeira concluded that he had proved that the amount of dilatation of the pericardium must be taken into account in the consideration of the remote prognosis of acute pericarditis and that influences, such as the increase in the body weight and the amount of muscular exertion, which augment the labour of a heart working in a dilated pericardium, tended to impair the power of compensation. The paper was supplemented by tables showing the observations of Dr. Sequeira on the individual cases and by detailed accounts of the more interesting ones.

OBSTETRICAL SOCIETY OF LONDON.

Hydramnion in Cases of Homologous Twins.—Exhibition of Specimens.

A MEETING of this society was held at 20, Hanover-square, W., on June 7th, Mr. ALBAN DORAN, President, being in the chair.

Dr. THOMAS WILSON read a paper on Hydramnion in Cases of Unioval or Homologous Twins. Although twins derived from separate ova were seven times more common than those derived from a single ovum, hydramnion appeared to occur nearly as frequently in the latter variety as in the former. The paper was founded on two cases of unioval or homologous twins which occurred in Dr. Wilson's practice and on 20 other cases collected from various sources. The usual history of a case of this kind is that the patient, usually a multipara, for the first few months of a pregnancy goes on normally. Then, usually at the fourth or fifth month and without any assignable cause, rapid enlargement of the abdomen begins acutely and leads in the course of a few days or weeks to extreme distress by reason of the severe pressure symptoms which are set up. The affection ends in nearly every case in premature delivery before the end of the seventh month; in the majority of the cases labour comes on spontaneously; in about 20 per cent. it has to be induced. The contents of the uterus are found to be twin fœtuses of the same sex, one of which is decidedly larger than the other and is enclosed in an amnion containing an enormous excess of fluid; the smaller fœtus is provided, as a rule, with a normal or deficient quantity of liquor amnii. There are a single placenta common to the two fœtuses, a single chorion, and two amnia. The heart and kidneys of the larger fœtus are hypertrophied, often enormously. Neither fœtus shows any malformation and the mother is healthy. The cause of the hydramnion is found in the relation of the vessels of the two fœtuses to the common placenta. The twin whose vessels run a shorter or more direct course obtains an undue share of blood from the placenta, in which anastomoses take place between the vessels belonging to the two fœtuses. In this way one fœtus grows faster than the other and the heart of this one becomes not only absolutely but also relatively larger than that

of the other—that is to say, the heart becomes really hypertrophied. This leads in some way to increased uptake of fluid in the placenta and so to increased exudation by this twin. This increased exudation takes the form of excessive secretion, certainly from the kidneys, probably from the skin, and possibly also from the portion of placenta belonging to the affected fœtus, and the accumulation of these discharges leads rapidly to enormous hydramnion of the same fœtus. The diagnosis can often be completely made by observing that the signs of a fœtus are limited to a small portion of the circumference of a hydramniotic cyst. The appropriate treatment consists in the induction of premature labour by puncture of the membranes. Case 1.—Seventh pregnancy; symptoms beginning at the fourth month; labour induced by puncture of the membranes at five and a half months. The larger fœtus was contained in 19 pints of amniotic fluid, with large heart and kidneys and thick umbilical cord with dilated vessels. The smaller twin was in a separate amnion with a normal amount of fluid; the umbilical cord was long, thin, and velamentous; common placenta. Case 2.—Third pregnancy; symptoms beginning at three and a half months; labour spontaneous at five months; enormous gush of fluid followed by birth of twins contained in their membranes. The larger twin was hydramniotic and the smaller one showed marked atrophy of the wall of the left ventricle; common placenta and chorion.

Dr. HERBERT SPENCER congratulated Dr. Wilson on the full account which he had given of this interesting condition. With reference to the clinical aspect of the subject he (Dr. Spencer) had found that ballottement, impossible to obtain in the dorsal position, could readily be got by placing the patient in the knee-elbow position when the fœtus sank to the dependent part of the abdomen and could be readily felt there. Adverting to the differential diagnosis between hydramnion and an ovarian tumour he suggested in difficult cases the passing of a bougie. He thought that Dr. Wilson took somewhat too limited a view of the causation of the hydramnion in these cases. It was evident that the theory given by him would not explain cases of hydramnion in cases of single fœtus and according to that theory hydramnion ought to be excessive in cases of acardiac fœtus where the circulation of the two fœtuses was carried on by the heart of one; this, however, was not the case. He thought that it was a difficult thing to diagnose hypertrophy of the heart in premature fœtuses, the size of the viscera varying very much in fœtuses of the same size. In one of his own cases of acute hydramnion with homologous twins the fœtuses were almost of the same weight (one just over, the other just under, 1 lb. 4½ oz.) and the hearts appeared to be normal. In this case the cord of the hydramniotic fœtus was much twisted near the fœtus and œdematous beyond (the placenta and cords weighed 1 lb. 7 oz.); the œdema thus produced would, he thought, possibly explain the hydramnion in this case, but he did not see how a hypertrophied heart could explain its occurrence. As fluid was found experimentally to exude into the amnion whether injected into the fœtal or natural circulation it was possible that hydramnion might arise from abnormalities in either. He agreed with Dr. Wilson in regarding the urine as one of the sources of the liquor amnii; if the fœtus did not pass urine into the amnion fœtal hydronephrosis, of which he had seen several examples, would not occur.

Dr. A. ROUTH thought that the question of the etiology of hydramnion would not be established without reference to its occurrence in single ova and he did not think that Dr. Wilson's theory would explain many of such cases. It did not account for hydramnion occurring in the acardiac twin instead of the hypercardiac, or for the majority of such cases being female and often puny and lacking vitality where the arterial tension must be below normal, or for its frequent occurrence in cases of anencephalus, spina bifida, exomphalos, &c. He thought the diagnosis by means of uterine contractions most helpful and if abdominal ballottement was obtained over all parts of the abdomen by putting the patient in the knee-chest position on either side it proved not only hydramnion but the absence of any complicating ovarian cyst.

Dr. GRIFFITH characterised the paper as one of the most valuable contributions to the subject. His own observations had led him to the same conclusions up to a certain point, but he was unable to accept as proved the view that the fœtal kidneys were sources of liquor amnii. It had never been demonstrated that it was possible for a fœtus to overcome the tension of the liquor amnii and to pass its secretion, if any, into this sac and there was evidence that it could not do so. The determination of such minute quantities of urea or similar substances was difficult.

Dr. WILSON, in reply, emphasised the fact that hydramnion, like dropsy and jaundice, was a symptom which might depend on some one or more of a variety of causes. His contribution was intended to deal with one group only of the cases and no attempt had been made to discuss the causes of hydramnion in general. The number of facts in favour of the renal origin of at least part of the liquor amnii left little room for doubting the truth of the theory. Intermittent contractions of the uterus were important in diagnosis. Treatment by rupture of the membranes could only be undertaken when urgent symptoms in the mother demanded it.

The following specimens were exhibited:—

Mr. MALCOLM: 1. Macerated Fœtus from Extra-Uterine Gestation retained about a year. 2. Macerated Fœtus from Extra-uterine Gestation retained seven years. 3. Multilocular Tumour growing from the front of the Bladder, containing papilloma and not connected with either ovary.

Dr. STEVENS: Drawings of Vaginitis caused by Bacillus Coli Communis.

Mr. TARGETT: A Naegelè Pelvis.

Dr. GRIFFITH: Two Cases of Sarcomatous Disease of the Uterus.

Dr. WILSON: Unioval Twins.

Mr. ADDINSELL: Unusual Thickening of the Endometrium in a Uterus containing Fibroids.

OPHTHALMOLOGICAL SOCIETY.

Obliteration of a Branch of the Retinal Artery.—Recovery of Sight after Temporary Occlusion of the Central Artery.—Traumatic Division of both Optic Nerves.

AN ordinary meeting of this society was held on June 8th, Mr. H. R. SWANZY, the President, being in the chair.

Dr. C. E. BEEVOR and Mr. MARCUS GUNN described a case of Obliteration of a Branch of the Retinal Artery following frequent attacks of Temporary Amblyopia. The patient, a man, aged 34 years, had suffered since childhood from temporary attacks of amblyopia lasting a few minutes, and involving especially the right eye, but unattended by headache. About nine months ago, after violent exercise, he had an attack in which the blindness of the right eye was followed by loss of the superior half of the visual field of the right which had persisted and part of the periphery of the lower half of that field. At present, on ophthalmoscopic examination there was atrophy of the lower half of the right disc with shrinking of the branches of the lower half of the arteria centralis retinæ. He had had occasional attacks affecting the left eye and in one he temporarily lost the lower half of the field of vision of the left eye. There were no other symptoms except that the right knee-jerk was very deficient and very difficult to obtain. The case was considered to be an unusual condition of complete obstruction of a retinal artery which had previously been liable to recurrent temporary constriction.

Mr. J. B. STORY reported two cases of Recovery of Sight after Partial Occlusion of the Central Artery. Case 1 was that of a man, aged about 35 years, who was attacked with blindness of the left eye on Dec. 26th, 1898, and was first seen on Jan. 5th of this year. Externally the eye was normal in appearance, but the pupil did not act to light; vision was reduced to a perception of light. The optic disc was hazy, the arteries were threadlike, and there was a slight cherry colour at the macula, as is seen in typical cases of embolism. Inhalation of nitrite of amyl produced some redness of the fundus and arterial and venous pulsation could be produced by pressure. The patient was apparently healthy and was not rheumatic; his heart was not examined. Iodide of potassium was ordered internally, with daily inhalations of amyl nitrite. After six days he could count fingers at three metres; small doses of corrosive sublimate were ordered. Two weeks after, on Jan. 23rd, the pupil was active and vision had become $\frac{5}{36}$; the improvement had begun suddenly four days before. On Feb. 7th vision had further improved to $\frac{6}{9}$ and on April 18th it was $\frac{6}{6}$; ophthalmoscopically the eye appeared to be normal

except for a faint perivascular line along the inferior retinal artery.—Case 2 was that of a woman, aged 39 years, who was first seen on Feb. 20th of this year. The left eye had suddenly become blind a week before; the heart was normal and her health was good. The eye could count fingers at five metres; the pupil was inactive to light; the retinal arteries were reduced to threads. There was some œdema of the retina and the veins were beaded. Trinitrine was prescribed. On March 8th there was no change in vision or in ophthalmoscopic appearances. On March 17th the pupil was active and vision was $\frac{6}{9}$. On May 1st vision was $\frac{6}{6}$; the left disc was slightly pale and its edges were slightly blurred; the arteries were small and the veins were normal. Mr. Story regarded both cases as examples of partial occlusion of the retinal artery.

The PRESIDENT observed that it was the obscurity of these cases which so greatly increased their interest.—Dr. J. T. THOMPSON suggested that in Mr. Story's second case the cause of obstruction might be obliterative arteritis, as shown in some cases by Reimar of Zurich. The narrowing of the artery under varying degrees of blood-pressure resulted in temporary anæmia of the affected area and finally in permanent collapse or thrombosis of the vessel, with persistent blindness.—Dr. JOHNSON TAYLOR referred to a case of a patient with frequent obscuration of vision in the right eye without fundus changes and with perfect vision in the intervals of attack, which he attributed to spasm of the central artery.—Dr. ARGYLL ROBERTSON said that the case with temporary obscuration in one eye resembled a condition described by Benson at the International Congress. The loss of knee-jerk on one side gave increased interest to the condition of the pupil reflex.—Mr. PRIESTLEY SMITH considered that the importance of these temporary attacks of obscuration of vision lay in the probability that at some time it might become permanent, giving particular point to early treatment and guarded prognosis. He cited an instance of a policeman changing from night to day duty and taking two meals with only a short interval falling into a sleep of plethora and awaking blind in both eyes but recovering the sight of one. In some cases, too, after removal of the ovaries a similar condition had ensued. He attributed these to vascular changes set up by reflex disturbance. In uric acid poisoning, anæmia, and arteritis temporary blindness occurred and was probably due to similar changes to those which occasioned migraine in gastric disturbance and anæmia. In migraine temporary paralysis of the third nerve sometimes occurred. He recommended antipyrin as an immediate remedy in the attack and subsequently hot-water potations, with alkalies and salicylic acid, as in gouty conditions.—Mr. JULER had seen Dr. Beevor's case before hearing his opinion and was disposed to attribute the loss of vision to thrombosis following on changes produced by a blow which the patient had received at polo previously attended with bleeding from the ear on the same side.—Mr. CANT cited the case of a young girl with attacks of blindness occurring once a week and lasting from 10 to 15 minutes. He saw her at intervals during nine months; only on one occasion did he witness an attack. In the eye affected there was the distinct cherry-red spot at the macula, but in the other eye with commencing attacks there was no change. The vision returned. Two months ago a large hæmorrhage occurred in the left eye and was clearing up. The general health was good except for defective and painful menstruation.—Mr. MARCUS GUNN, referring to the first case, said that the obscuration lasted from two to five minutes, recovery being absolute. The condition of the artery was unmistakeable. Argyll Robertson pupil was not present. The condition suggested that of migraine.—Dr. BEEVOR, in reply, stated that the condition of the patient suggested locomotor ataxy. The knee-jerk was, however, not quite absent and the disorder had lasted since the patient was seven years old. Other distinctive signs of ataxy were not present and the pupil was unaffected. A sister of the patient was subject to two kinds of paroxysms—one like her brother's with temporary blindness and the other true migraine. He had never seen migraine cause optic nerve atrophy. In regard to the polo accident in this case he thought that it was too remote, having preceded the attack by three months.

Mr. KENNETH SCOTT related a case of Traumatic Division of both Optic Nerves. An Egyptian native, aged 23 years, was sent to the Kasr-el-Aïni Hospital at Cairo after attempted suicide. A bullet had entered the right temple, traversed the head, and passed out at the left temple; it had passed from side to side below the base of the skull in a direction downwards and forwards. Both eyeballs were completely protruded and lay on the cheeks, the right one hanging down 19 millimetres and the left one 15 millimetres. Both eyes were dark, discoloured, and flattened; it was obvious that both optic nerves had been torn across and that the globes had been ruptured. The damaged eyes were removed and it was found that both orbits had been traversed by the bullet and the base of the brain had been shattered as there were fragments of bone and brain matter in the right orbit. The patient did not long survive the injury.—Mr. J. T. THOMPSON cited the case of a man who attempted suicide by shooting himself in the temple. The right eye was ruptured and the left was proptosed. He was totally blind, but survived two years.

The following card specimens were exhibited:—

Dr. J. TATHAM THOMPSON: Section of an Eye showing Subconjunctival Dislocation of the Lens.

Mr. H. E. JULER: Fundus Changes following Optic Neuritis.

Mr. HOLMES SPICER: A case of Spring Catarrh.

BRITISH GYNÆCOLOGICAL SOCIETY.

Deciduoma Malignum.—Diseases of the Female Pelvic Organs.

A MEETING of this society was held on June 8th, Dr. H. MACNAUGHTON-JONES, President, being in the chair.

Dr. F. W. N. HAULTAIN (Edinburgh) showed a specimen and microscopical slides and gave a lantern demonstration of micro-photographs of a case of Deciduoma Malignum. Rejecting the view that these cases were to be regarded as examples of sarcoma attacking the pregnant uterus he held the view that the condition was one of chorio-epithelioma.—The PRESIDENT said that the general opinion of continental authorities coincided with that of Dr. Haultain, and the differences which were met with were explained as being due to "typical" and "atypical" forms of the disease. This was his own view also, although his opinion was based on extraneous evidence, for he had not met with a case in his own practice.—Dr. T. W. EDEN thought there was grave doubt whether the 91 cases which had been recorded as deciduoma malignum could bear close examination. In the last volume of Veit's "Handbuch der Gynäcologie" the editor expressed the opinion that the chorionic theory was untenable and that the disease was in reality sarcoma modified by the occurrence of pregnancy. Even Dr. Haultain himself admitted that the growth presented the broad characteristics of a sarcoma. The only structures in it which were peculiar were the long bands and loops of nucleated protoplasm; the other features might occur in any rapidly-growing sarcoma.—Dr. HERBERT SNOW thought that deciduoma malignum did not possess characters sufficiently different from other growths to warrant a separate nomenclature. Probably some cases described as deciduoma malignum were not malignant at all.—Dr. WILLIAM DUNCAN deprecated making a special pathology for diseases of the uterus: this practice had kept gynæcology back many times in the past and he hoped that the term "deciduoma malignum" would soon disappear.

Dr. MENDES DE LEON (Amsterdam) read a paper on General Disorders Originating in Diseases of the Female Pelvic Organs. After dwelling on some of the reflex symptoms which were found associated with diseases of the uterus and appendages he went on to remark that the varied forms of misery liable to be brought about under the influence of a pathological condition of the sexual organs on the whole constitution of a woman could not be overrated. Nothing could be further from his mind than to insinuate that every ailing woman should be submitted to a gynæcological examination; but in the absence of sufficient cause elsewhere the possibility of pelvic disease should be borne in mind. It was important to remember that anomalies of the pelvic organs, although insignificant *quoad functionem* and *quoad vitam*, might still be the cause of serious disturbance to the general health. It was something more than injustice to a woman if they deliberately ignored the influence which such local disease might exert in exciting morbid impulses in the central nervous system and thus through summary diagnosis cause the patient to be branded as hysterical.—In the discussion which followed Dr. HEYWOOD SMITH, Dr. BURLEIGH-ROBINSON, Mr. CHARLES RYALL, and the PRESIDENT took part, and Dr. MENDES DE LEON replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Congenital Syphilitic Osteitis.

THE ninth ordinary meeting of this society was held on June 7th, Dr. CRAIG being in the chair.

Mr. SHAW M'LAREN showed a boy on whom he had performed Disarticulation at the Hip. The lad was a pit-head worker who was caught by the hutches and driven through a narrow opening, subsequently falling a considerable height. The accident produced what was really an amputation through the middle of the right thigh. The operation was performed 12 hours after the accident. Hæmorrhage was completely and most satisfactorily prevented by digital pressure on the abdominal aorta by an assistant. The lad was young, however, and as the abdominal walls were thin compression was easily effected. At the end of the operation, though very little blood had been lost, the patient was pulseless. A pint of saline fluid was then injected into his median basilic vein, and together with enemata of hot coffee (no alcohol was employed) his condition soon improved. Parts of the flaps had been badly crushed by the accident and later these sloughed and prevented union by first intention.

Mr. CATHCART showed a patient after operation for a Perforated Vermiform Appendix with General Peritonitis. Recovery after such a state of affairs was infrequent. The woman was admitted to the Royal Infirmary five days after the first onset of the symptoms, but as these symptoms were very slight during the first two days it may be said that she was admitted on the third day really. Her condition then was very critical; there seemed to be general peritonitis with a localising towards the right side. The incision was therefore made to the right of the median line and the appendix was found to have sloughed as far as its junction with the cæcum. Very fœtid pus was present as well as a small concretion in the pelvis. As each loop of intestines was investigated a pocketful of fœtid fluid escaped. As had been recommended, the intestines were then pulled out loop by loop from the wound and thoroughly washed, as was also the abdominal cavity. The cæcum was so distended that it required to be punctured. As the wound which remained after the sloughing of the appendix was soft and friable it was not sutured but the neighbourhood was packed with gauze. No peritonitis ensued subsequently, but pieces of the right rectus muscle sloughed away during the healing process. This showed that the peritoneum was much less susceptible to infection than were the other tissues, as the rectus was only once touched by the septic fluid during its escape. At present a small valvular sinus remained in the wound and apparently communicated with the bowel, as when coloured fluid was injected it appeared in the motions, though none of the fæces ever escaped.

Mr. CAIRD exhibited a man who evidently had suffered from Congenital Syphilis. At present he possessed a hard sore on the penis; he had a secondary syphilitic rash and was losing his hair. The case was apparently one of congenital together with secondary syphilis.

Dr. SHENNAN exhibited the following specimens:—1. Malignant Pustule. The specimen was characteristic—the sloughy centre and œdematous surroundings; and in a section through it the anthrax bacilli could be seen lying in the tissue spaces. 2. Sarcoma in the Tip of the Temporo-sphenoidal Lobe. 3. Calcareous Deposit in the Epididymis and extending into the Tunicæ. The specimen was from an old man, aged 75 years, and resulted probably from a tuberculous deposit. 4. Extensive Infarcts in Kidney. The specimen was from a woman who without previous symptoms suddenly became uræmic. She had not previously had any œdema of the face or limbs. The urine became solid on boiling. The woman died four days after the attack. The kidney was full of hæmorrhagic infarcts, especially in the cortex. 5. Tuberculous Nodules in the wall of the heart. The specimen was from an infant and was a rare occurrence. The nodule was of about the size of a pea. The infection probably travelled from the cervical glands downwards. 6. Lungs showing Diabetic Phthisis. The nodules throughout the lungs were large, numerous, and well-defined. Caseation had been rapid in them and the surrounding tissue was very red. 7. Two Gangrenous Ulcers from the Skin of the Foot in the same case.

Dr. ALEXANDER JAMES communicated a paper on a Case of Congenital Syphilitic Osteitis. The patient was a lad, aged 18 years. His family history was distinctly syphilitic. His mother had a son by her first husband and he seemed to have suffered from a similar disease to the present patient's and died when 13 years of age. Of the same family as the patient a boy died when seven weeks old from some unknown cause; next a boy was born with some swelling on his back and he only lived six days; next came a miscarriage at the third month, followed by a son who died 11 weeks later. Two abortions followed and then four children who were alive and healthy. Dr. James had noted that in such families great fecundity was the rule. As an infant the patient had neither snuffles nor rash. When two years old, however, he had keratitis. The present illness began when he was nine years of age subsequently to an attack of measles and whooping-cough. He then began to suffer from pains in the arms and legs and a swelling (node) at the middle of the right tibia. The latter enlarged and was painful at intervals. In 1892 Dr. John Thomson saw the patient and found that the lower ends of both humeri were enlarged and that there were localised swellings (nodes) on both tibiæ and on the right scapula. Under iodide of potassium the patient improved. In 1897, when he was first admitted to the ward, he had great pain in the right leg and there was a diffuse thickening of the right tibia. The left tibia was also enlarged. At this time he complained of no arm trouble and again improved under iodides. In May, 1898, he first noticed that the index and middle finger of the right hand had become weak and this weakness soon affected all the fingers of that hand. For five weeks before admission he had suffered from headaches which were always worse at night. Twitchings of the right hand and arm followed. On admission he was found to be a badly grown lad of five feet four inches; his muscular development was poor and he was dull and apathetic. There was no rise of temperature. The right tibia was thickened throughout its length and slightly curved inwards. It was also about three quarters of an inch longer than the left, as may also have been the case with the right femur as contrasted with the left. There were no special changes in the sensory functions but loss of motion was present in the right forearm and hand. His vision was blurred and especially in the left eye; optic neuritis was present. The plantar and epigastric reflexes were more marked on the left side but the deep reflexes were all absent. The lymphatic glands in either groin were enlarged, as were others also, and the spleen measured seven and a half inches in length by five inches in breadth. The arterial walls were thickened and this thickening was especially marked in the veins of the leg, the saphenous vein standing out like a tendon. The diagnosis was that of hereditary syphilis. Nodes had been present previously but these had disappeared, leaving a diffuse osteitis (local giantism). There was also a tumour in the left Rolandic area affecting the right hand and arm centre. Under large doses of iodide he improved somewhat but went home and died on Jan. 15th, 1899. The post-mortem examination was imperfect but a tumour of the size of a golf ball was found as diagnosed and a disc-like portion of the right tibia was removed. The latter showed that the tibia consisted of a thin rim of dense bone at the periphery with the interior entirely filled up with cancellated tissue, leaving no medullary cavity. Under a higher magnification much fat and marrow cells were seen to be present in the bone. The case was evidently one of distinct specific disease. Gummata had been formed and had then disappeared. The lesions which were present were rather parasyphilitic than really syphilitic. Still later, however, the hereditary disease reasserted itself in the shape of the cerebral gumma. Such questions as, Could such a patient take syphilis afresh? or, Has this osteitis occurring in syphilis any connexion with other forms of osteitis? might be asked. This osteitis had caused an increase in quantity at the expense of quality. It had caused a reversion to an earlier developmental stage in the bone. There had also been an increase in the length of the bone. It was said that general giantism might result from such osteitis and it was true that many giants who were exhibited as such were syphilitic. On the other hand, however, they found dwarfism as a result of syphilis. The elongation of the bone might have resulted from the same causes which produced its increase in thickness.—Dr. JOHN THOMSON thought that what Dr. James called "nodes" were merely limited patches of osteitis and not gummatous. He also objected to the term "parasyphilitic" as there had been no gap in the symptoms which this

patient presented. In this case Dr. Thomson thought that the elevations on the bone were more marked at first and then became less so, not on account of any absorption, but because the surrounding parts of the bone underwent a thickening. The same was seen in the natiform crania of syphilitic children where the lenticular-shaped bosses gradually disappeared by reason of the filling up of the valleys between, the whole bone becoming thickened and cancellated.—Mr. CAIRD thought that the section of bone exhibited presented nothing of a specific type, but said that if the patient had lived it might have become denser than any other bone, much as was met with in the case of septic bone diseases.—Mr. ALEXIS THOMSON said that one saw similar conditions in bones and specially in the tibia in other bone diseases. He objected to the term "syphilitic osteitis."—Dr. JAMES replied.

KIDDERMINSTER MEDICAL SOCIETY.—A meeting of this society was held on May 26th, Mr. E. H. Addenbrooke, President, being in the chair.—Mr. J. Lionel Stretton showed:—1. A young woman, aged 21 years, upon whom he had operated 10 weeks previously for Tuberculous Peritonitis. She walked about out-of-doors and expressed herself quite well, the abdomen appeared to be normal, and she had gained 12 pounds in weight. She had been taking creasote in doses increasing by one minim each day and was now taking 60 minims three times a day. On several occasions her urine became dark green in colour, but this always disappeared in a day or two without discontinuing the medicine. A portion of the omentum was sent to the Clinical Research Association and they reported as follows: "This tissue is infiltrated with an abundance of grey and caseous tubercles. The giant cell systems are well developed." 2. The Pyloric End of the Stomach with part of the Duodenum removed from a man, aged 67 years. He had suffered from gastric symptoms for some months and had been an in-patient the early part of the year, during which time he was thoroughly examined under an anæsthetic with a negative result. Although somewhat relieved by treatment his symptoms soon returned when he went out. He chiefly complained of severe pain in the stomach which was increased during the night; he stated that he had never had hæmatemesis, but that he vomited at times, though this never occurred while he was in the hospital, and he had lost flesh. The abdomen was opened in the middle line above the umbilicus; there was a considerable thickness of fat and the omentum was bulky. Tucked up beneath the liver was a large mass of growth involving the pyloric end of the stomach which was bound down by adhesions. After separating these it was found that the growth involved the whole circumference of the organ, but the larger portion was on the lesser curvature. The whole of the diseased part was excised which involved the removal of one-third of the stomach and one and a half inches of the duodenum. The stomach was closed with sutures except the lower angle which was joined to the duodenum with a Murphy's button. He bore the operation well and passed a comfortable night; the next day he was quite himself and had rallied from the shock, but at 3 A.M. the following morning he had a sudden attack of cardiac failure and died in spite of all efforts to revive him. Nothing was found post mortem to account for death; the stomach was securely sutured and held water without leakage. The chief points of interest were: (1) the slight symptoms; (2) the negative results of abdominal examination due to the thickness of the walls and the position of the growth; and (3) the sudden death. Although attributed to cardiac failure there was no evidence of its cause and everything had been done to guard against it.—Mr. F. Oliphant read notes of a case of Pyæmia treated with anti-streptococcic serum. The man, aged 23 years, was admitted with stiffness and swelling in the left side of the neck which commenced two days previously. At first it was regarded as a case of inflammation of the lymphatics, but pyæmic symptoms soon developed. On April 17th and three following days he had an injection of serum (10 cubic centimetres). There was not much effect upon his general condition, though the local symptoms were decidedly improved, and he died on the 24th. Mr. Oliphant considered that he was benefited by the treatment and if it had been given earlier a favourable result might have been obtained.—Mr. W. Miles read a paper on Adenoid Vegetations in the Naso-pharynx.

WIGAN MEDICAL SOCIETY.—A meeting of this society was held on June 8th, Mr. C. R. Graham occupying the chair in the unavoidable absence of Mr. L. Cooke (the President).—A vote of condolence was unanimously passed to Mr. W. Mitchell Roocroft and family on the death of his father, Mr. William Roocroft, J.P., a former President of the society.—It was proposed by Dr. Benson and seconded by Mr. Monks, and carried with acclammation, that the society tender its hearty congratulations to Sir William Mitchell Banks on the mark of distinction accorded him recently by Her Gracious Majesty the Queen.—The Secretary read the following resolution on vaccination which had been received from the honorary secretary of the Medical Institution, Liverpool:—

That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act of 1898 was enacted in direct opposition to the findings of the Royal Commission and that the operation of the Act will be prejudicial to the public safety and that its amendment is urgently required.

It was proposed by Dr. Benson and seconded by the Honorary Secretary that the society support the resolution of the Liverpool Medical Institution. It was then proposed that the letter and resolution lie on the table. An interesting discussion followed, a further amendment being proposed and carried unanimously to the following effect:—

That this meeting is of opinion that Parliament should make efficient vaccination compulsory; that the sanitary authority should have the carrying out of the Vaccination Act; that the cost of vaccination should be a State or Exchequer charge; and that private practitioners and public vaccinators should be paid the same fees from the Exchequer funds.

The following members took part in the discussion: Dr. Benson, Dr. Rees, Mr. Bradbury, Mr. Parker, Mr. Brady, Mr. Wilding, Mr. Graham, Mr. Monks, and the Honorary Secretary. The President's address was postponed till the next meeting.

Reviews and Notices of Books.

A Class-book of Elementary Practical Physiology By DE BURGH BIRCH, M.D., C.M., F.R.S. Edin., Professor of Physiology in the Yorkshire College of the Victoria University. London: J. & A. Churchill. 1899. Pp. 273. Price 6*s.* 6*d.*

THIS work is an expansion of the notes which the author places before the students attending his course of practical physiology in the Yorkshire College and is divided into three sections. The first deals with histology, the second with chemistry in so far as it is required in medicine, and the third is devoted to a description of the more simple and fundamental physiological experiments. The size of the volume precludes the giving of details of the structure of the several organs, but the names applied to the parts are mentioned to indicate to the student the points for which he must look, as, for example, in the case of the bones, the lamellæ and their disposition, the ground substance, lacunæ, Haversian spaces, and the appearances presented in ossifying cartilage. In the preliminary exercises with the microscope the method of employing a warm stage is overlooked, but the mode of measurement of an object is well described. A drawing is given of a simple appliance for fixing animal tissues by injection and a considerable number of formulæ for hardening and staining tissues is given, such, for example, as Weigert's fibrin stain, Golgi's chromate of silver process, and Ramón y Cajal's double impregnation method. The various tests for glycoses, saccharoses, and amyloses, and for fats and proteids are fully and satisfactorily, though briefly, described. The chapter on Normal and Abnormal Urine is very good. The principal apparatus required in physiological experiments are described and illustrated by very good woodcuts and the fundamental experiments of physiology are given.

There are several errors which require correction, Hensen being spelt Henson; Engelmann, Englemann; rectus,

rectum; Pacinian, Pacinnian; panniculus adiposus, paniculus adeposus; epith, spith; Kanthack, Kauthack; and so on.

The Practice of Obstetrics. By American Authors. Edited by CHARLES JEWETT, M.D. Illustrated with 441 Engravings, 34 of which are in colours, and 22 Coloured Plates. 8vo. London: Henry Kimpton. 1899. Pp. 770. Price 25*s.* net.

THIS volume is described as the work of obstetric teachers and of other experts in the cognate lines on which they have written. It is, as such books usually are, of very unequal merit, and while some of the contributions are of great value others by no means reach the same standard of excellence. The book is divided into eight parts, dealing respectively with Anatomy, the Physiology and Pathology of Pregnancy, Labour and the Puerperium, and Obstetric Surgery. The chapter upon Anatomy is good and clear and contains a full account of the anatomy of the contents of the pelvis.

In Part II. we are inclined to think that the section devoted to the Development of the Ovum is too full and detailed for a work of this kind. It is pretty certain to be skipped by the average student, while the practitioner desiring a complete account of the subject would do better to refer to a work dealing especially with embryology.

The rest of the chapters upon the Physiology of Pregnancy contain all the essential details. The anatomical description of the bony pelvis is good and we are glad to see that the author gives the measurements both in inches and in centimetres. The mechanism of labour is but poorly described and no account appears to have been taken of the valuable results obtained by the study of frozen sections in this connexion. The description of the mechanism of the third stage of labour is no better and a student reading the short paragraph devoted to this important subject would quite fail to get any clear idea of the various views held at the present day as to how the separation of the placenta really occurs. In the management of normal labour the use of antiseptics is fully discussed and due stress is laid both in this chapter and in that upon Puerperal Infection upon the great importance of abdominal palpation and the avoidance of unnecessary vaginal examinations. Walcher's position is illustrated by a full-page photograph of a patient in that posture and is recommended in several places in the book, but no mention is made of the fact that the increase in the conjugate diameter is not believed in by everyone and is, indeed, denied by some obstetricians of note. The chapter upon the Care and Management of the New-born Child contains a very good account of infant-feeding upon a scientific basis. The sections upon the Anomalies and Diseases of the Fœtus, consisting as they do of little more than a catalogue of names, are of little value, although illustrated by some good photographs from Hirst and Piersol's Atlas.

We entirely agree with the recommendation that a sharp and not a blunt curette should be used in the treatment of cases of incomplete abortion. With a sharp instrument the amount of force employed can be carefully graduated and the decidua can be more certainly and just as safely removed as with the blunt curette. The chapter upon Puerperal Infection is from the pen of Dr. Whitridge Williams. As might be anticipated the bacteriological and pathological aspects of the subject are very fully considered and a very interesting review is given of the work done upon the question of the presence or absence of pathogenic organisms in the vagina and the possibility of auto-infection. Dr. Williams draws attention to the important difference between cases of septic and putrid endometritis and the uselessness of local treatment in cases of acute septicæmia with few or no local changes. He does not regard with favour the operation of hysterectomy in the early stages of puerperal infection and, as he points out, if the operation be done sufficiently early a large number of uteri will be removed unnecessarily, while if it be put off until other organs are involved it will in the majority of cases prove useless. This is one of the best accounts of puerperal infection which has so far been written and will well repay perusal. A slight typographical error is to be noted on pp. 571 and 572, the descriptions of Figs. 353 and 354 having been transposed. The best part of the chapter upon Obstetric Surgery is the account of Version and of Symphysiotomy. The illustrations are mainly derived from other sources, so that many of them are familiar, but a good choice has been made. The book is one which will be found very useful for purposes of reference and does credit to the editor and the gentlemen who have contributed to its production.

Life of Man on the High Alps. By ANGELO MOSSO. Translated from the Second Edition of the Italian by E. LOUGH KIESOW. 1898. London: T. Fisher Unwin. Pp. 342. Price 21*s.*

THE barometric conditions under which the vast majority of the human race live and work are on the whole so very uniform that much interest naturally attaches to an investigation into the differences resulting from any considerable variation in the atmospheric pressure. Professor Angelo Mosso has devoted much time and care to the question as to the effect on the human body of greatly reduced pressures and his results are presented in this volume. Early in 1894 the Regina Margherita hut was completed on the summit of Monte Rosa, at a height of 4560 metres (15,000 feet), and the author decided to undertake a series of researches into the effects on human beings produced by this altitude. By the permission of the Italian Minister for War he was permitted to take with him 10 men of the Alpine regiment under the command of an army surgeon. A number of soldiers at once volunteered and some preliminary investigations were undertaken with the object of ascertaining the physiological conditions of the men under ordinary circumstances. It is so very easy to confuse the effects of fatigue with those of lessened barometric pressure that Professor Mosso took special care to avoid this error. In addition to the author and the soldiers the party contained the author's brother, Ugolino Mosso, Professor of Pharmacology at the University of Genoa, Dr. Vittorio Abelli, an army surgeon, and a medical student, Signor Beno Bizzozero, to whom are owing most of the numerous photographs which adorn the book. Unfortunately he died a year after the expedition returned.

It has always hitherto been stated that at great altitudes respiration is more rapid and more profound, but this error is due to the long duration of the disturbing influence of the ascent; for in persons in complete repose dwelling at great heights the breathing has been found by the author not to increase either in frequency or in depth, but even to diminish, and a careful measurement of the quantity of air expired showed that less air was inhaled at these great altitudes. The effect on the heart and circulation is but slight unless the change from a low to a great altitude has been made rapidly; in that case there may be a considerable increase in the number of pulsations of the heart and the blood-pressure is diminished. In order to register the mechanical work of the muscles the author devised a machine which he called an "ergograph"; it registered the contractions of the middle finger which were executed rhythmically following the movements of a pendulum. It was found that on Monte Rosa the force of the muscles was slightly diminished, but that the total amount of the work accomplished was only slightly less than in the

plain. When experiments were made with a pair of dumb-bells weighing five kilogrammes each it was found that more work was accomplished at the altitude of 15,000 feet than at Turin, but this curious result was to be explained partly by the increased practice and partly by the fact that this exercise replaced all the various forms of amusement which the soldiers had at their disposal in Turin. It is often believed by Alpine climbers that rarefied air produces an augmentation of strength. This is, however, an illusion, for at an altitude of 15,000 feet the diminished resistance to work was obvious to all the members of the party; and the same result was noticed by Whymper at Quito. A very interesting phenomenon which is sometimes observable after severe mountain climbing as after other forms of physical exertion is the condition of exaltation. In this state the climber is unconscious of his fatigue and considers himself capable of accomplishing much more than he has already done, or he may act as if intoxicated, afterwards having no remembrance of what has taken place. During ascents the memory may be weakened, and the author quotes from his own work on "Fatigue" the case of a professor of botany who as he ascended forgot the names of plants well known to him which, however, he recalled in descending. The symptom is common and cutaneous sensibility is also diminished. Death may result from fatigue and the sad story is related of the death from this cause of the two sons of the professor of anatomy in the University of Pavia which occurred in 1896 at a height of 2100 metres.

Perhaps the most interesting portion of the volume is the account of the author's investigations into the etiology of mountain sickness. The symptoms are palpitation, faintness, breathlessness, and weakness. There may be nausea and vomiting, but the symptoms vary much in different cases. It has hitherto been customary to attribute them to fatigue and indigestion, but Professor Mosso will not accept this explanation. He points out that aeronauts suffer from it; therefore fatigue is no necessary factor in causing it. There are two forms of mountain sickness—the acute and the slow form. The acute form shows itself suddenly on entering the rarefied air, the slow form appears later and may be in part the result of other weakening causes. The acute form is that which chiefly needed to be studied. Paul Bert ascribed all the symptoms of mountain sickness to a lack of oxygen, but oxygen has been used at Mont Blanc and has been found to be quite useless. But Paul Bert has pointed out in his work on Barometric Pressure that the carbonic acid in arterial blood diminishes much more rapidly than the oxygen when the barometric pressure diminishes, and Hüfner has shown that oxyhæmoglobin does not begin to dissociate until the pressure has fallen to 238 millimetres so that 9000 metres of altitude would be needed to make any change in oxyhæmoglobin. Professor Mosso attributes mountain sickness to a diminution in the amount of carbonic acid in the blood; this lack of carbonic acid he has called "acapnia," from ἄκαπνος = without smoke. The author made a series of experiments with a pneumatic chamber in which the pressure could be diminished and he found that the phenomena of mountain sickness did not correspond at all to the amount of oxygen present, but that if carbonic acid were present in a normal or excessive amount a higher degree of rarefaction of the air could be endured. In one experiment on himself Professor Mosso was able to withstand an air pressure of only 192 millimetres of mercury; this is equal to an altitude of 11,650 metres (38,000 feet) and the inspired air contained 2·1 per cent. of carbonic acid.

There is, however, another factor in the production of mountain sickness and that is paralysis of the vagus. This is shown by a dilatation of the pulmonary capillaries, sometimes accompanied by œdema of the lungs. The author promises to publish later the results of his researches on the treatment of mountain sickness and fatigue.

An interesting phenomenon of great altitudes is the slight effect on the mind produced by alcohol, and intoxication is somewhat difficult of attainment. This is shown by some investigations by Dr. Benedicenti to be due to the fact that the alcohol much more readily passes away by the lungs, and chloroform has a much more transient effect when administered.

The book will be very interesting to the medical world, but many a non-professional reader will find much to entertain him in the account of arduous labour in a lonely spot, described in a tale which is charmingly set forth and which is illustrated by more than 50 excellent photographs. The descriptions though as exact as any physiologist can require are written in a manner that any intelligent man can understand. The translation by Dr. Kiesow is very good, and it is only by a slight indication here and there we can tell that we are not reading the book in the language in which it was originally written. There is one fault and that we must mention: a work of this importance should be furnished with an index.

The Psychology of Reasoning, Based on Experimental Researches in Hypnotism. By ALFRED BINET, Director of the Laboratory of Physiological Pyschology in the Sorbonne. Translated from the Second French Edition by ADAM G. WHYTE, B.Sc. London: Kegan Paul, Trench, Trübner, and Co. 1899. Pp. 191. Price 3*s.* 6*d.*

IN this little volume Dr. Alfred Binet, the accomplished Director of the Laboratory of Physiological Psychology in the Sorbonne, gives us an interesting and valuable study of mental processes based partly on individuals in the waking state and partly on subjects under the influence of hypnotism. Like everything that Dr. Binet writes the subject is stated and expounded lucidly even when the argument is not always convincing. At the outset stress is laid on mental processes belonging to the class of *unconscious* reasoning. The basis of reasoning is explained and expressed thus: "The fundamental element of the mind is the image; reasoning is an organisation of images determined by the properties of the images themselves, and the images have merely to be brought together for them to become organised, and reasoning follows with the inevitable necessity of a reflex" (p. 3). This main thesis is skilfully developed in the succeeding pages. The process of perception is briefly but clearly expounded and illustrated and concrete examples are given in sufficient numbers to make it interesting. The subject of mental images is next taken up and dealt with in detail. It is pointed out that this endowment is very variable both for individuals and for races. The French, as pointed out by Galton, appear to possess this gift "as attested by their talent for organising ceremonies and *fêtes*, their aptitude for strategy, and the clearness of their language; *figurez-vous* is an expression which is often met with in French." Individuals are distinguished according as to whether visual or auditory images predominate and form the major element in their mental processes, and the special development of the visual element in blindfold chess playing is pointed out. While painters are predominantly *visuels*, musicians are mainly *auditifs*. Other individuals belong to the *indifferent type;* in those who belong to this class no one kind of image is more developed than the others. Finally, a motor or, as we should call it, a kinæsthetic type also is known. The special relation of some of these types to the function of speech is discussed. It is shown, for example, that Stricker belongs to the "motor" type and Paulhan to the "auditory" type as regards speech, and thus a controversy which has been

going on for some time between these two psychologists[1] is accounted for and the differences are reconciled.

The Mechanism of Reasoning is treated (Chapter iv.) in an admirable way, and the discussion is illustrated by concrete instances and by experiments designed to explain the operations involved. Dr. Fere is strongly influenced by the psychology of the English and American schools, and frequent are the references to Herbert Spencer and Galton, as well as to Bain and William James. It is difficult to give within the limits of this review an outline of this chapter. It is one which will repay careful study.

We must add that in the general body of the work many examples chosen (and in the majority of instances very happily) from the domain of mental pathology and of hypnotism are used to explain and illustrate the author's meaning. The work is throughout distinguished by that lucidity and proportion characteristic of the best work of the French school, and this little book can be heartily recommended to readers interested in the study of psychology who wish for something more solid than academic speculations and theories.

The Foundations of Zoology. By W. K. BROOKS, Ph.D., LL.D., Professor of Zoology in the Johns Hopkins University. London: Macmillan and Co. Pp. 339. Price 10*s.* 6*d.*

THIS volume consists of reprints of a course of lectures delivered at Columbia University on the Principles of Science as Illustrated by Zoology. Some of these lectures have already appeared in various ways, but there can be little doubt that the author has been well advised in presenting them to the scientific world in a complete form. Perhaps we cannot give an idea of the scope of the work in a small space better than by quoting the titles of the 13 lectures of which it is made up. They are: 1. Introductory. 2. Huxley and the Problem of the Naturalist. 3. Nature and Nurture. 4. Lamarck. 5. Migration and its Bearing on Lamarckism. 6 (Part 1). Zoology and the Philosophy of Evolution. 6 (Part 2). A Note on the Views of Galton and Weissman on Inheritance. 7. Galton and the Statistical Study of Inheritance. 8. Darwin and the Origin of Species. 9. Natural Selection and the Antiquity of Life. 10. Natural Selection and Natural Theology. 11. Paley, and the Argument from Contrivance. 12. The Mechanism of Nature. 13. Louis Agassiz and George Berkeley.

It will be seen from the foregoing list that many of the most interesting questions of modern zoology are discussed in this volume and the work gives a fair summary of the views of eminent men of science who have turned the thoughts of zoologists in different directions. At the same time it expresses the author's views, sometimes clearly, sometimes obscurely, to those who have not hitherto devoted much time to the study of the factors which govern animal life. From our point of view the thing to be considered is how the work is likely to interest and to be of value to men whose powers of observation have been sharpened by continual use but who have not had time to devote to deep abstract thought on metaphysical subjects.

From such a standpoint we should say that many of the author's ideas are not to be grasped without considerable mental strain and even then it is difficult to be sure that one rightly apprehends them. Perhaps his meaning is not always expressed in the happiest and most lucid form; perhaps more illustrative examples of his contentions would have been advantageous, although it must be confessed that his pages are by no means lacking in these. Much space is rightly given to the subject of Natural Selection and if we understand him aright the author leans to the conviction that while this is the chief factor in the evolution of species there may still be a residuum to be accounted for by the inheritance of acquired characters.

We feel sure that while there may be much in this book with which all will not agree, even much which all will not understand, the mental exercise of honestly attempting to master all the arguments in it cannot fail to do good.

[1] Revue Philosophique, 1883 and 1884 passim.

Aseptic Duties of a Surgical Nurse or Dresser. By JOHN O'CONOR, M.A., M.D. Dub., Senior Medical Officer, British Hospital, Buenos Ayres. Buenos Ayres: John Grant and Sons.

THIS little book, as the author tells us in his preface, was originally written for the use of the nurses at the British Hospital at Buenos Ayres but is now published in the hope that it may have a wider field of usefulness. It will undoubtedly, we think, be of service to nurses in out-of-the-way places, to say nothing of dressers even in large hospitals. The directions are very clearly given and the author, although not claiming that his methods are the only ones, yet gives no choice of details, for, as he very truly says, "If one has two or more methods of asepsis sepsis generally results." The book is, we believe, about to be published in England by Mr. H. K. Lewis.

JOURNALS.

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, F.R.S., ADAM SEDGWICK, F.R.S., and W. WELDON, F.R.S. New Series, No. 166. Vol. XLII. Part 2. London: J. & A. Churchill. 1899. Price 10*s.*—A notice is given in this part that the issue of the *Quarterly Journal* will not be limited as heretofore to four parts or numbers in the year, but that as there is an accumulation of material in the hands of the editors additional parts will be published at such intervals as may appear advisable. The present part contains a Memoir on the Development of the Parietal Eye and Adjacent Organs in Sphenodon (Hatteria), by Professor Arthur Dendy, F.L.S., of the University of New Zealand. Professor Dendy has been fortunate in securing a considerable number of the eggs of the Sphenodon and has extracted from them a very good series of embryos. The article is illustrated with 28 figures, showing the median eye of this lizard in all stages of development. The second article is a continuation of the memoir by Mr. J. E. S. Moore on the Mollusks of the Great African Lakes, in which descriptions and drawings are given illustrating the form and structure of the Tanganyika rufofilosa, Melania episcopalis, Littorina litteria, Spekia zonatus, Nassopsis, Bythocaras, and others. The next article is by Lily H. Huie who dates from the Physiological Laboratory, Oxford, and writes on the Further Study of Cytological Changes produced in Drosera, giving some good coloured illustrations of the changes in the cells of the Drosera at different periods after feeding. The last article is by Dr. Arthur Willey, M.A., and is entitled Remarks on Some Recent Work on the Protochorda, with a Condensed Account of Some Fresh Observations on the Enteropneusta.

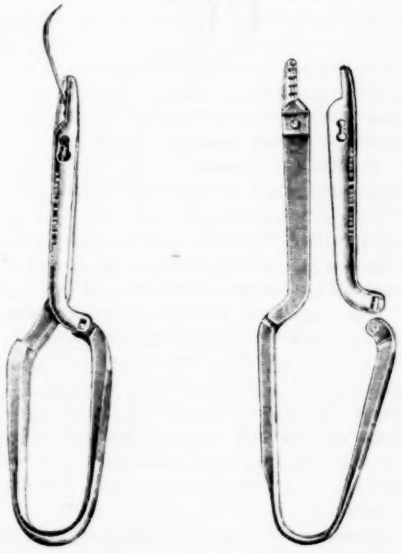
The Journal of Physiology. Edited by Sir MICHAEL FOSTER, M.D. Lond., F.R.S., and J. N. LANGLEY, Sc.D., F.R.S. Vol. xxiv. No. 2. May 11th, 1899. London: C. J. Clay and Sons. Price 7*s.*—The articles contained in this part are: 1. W. M. Bayliss and E. H. Starling: The Movements and Innervation of the Small Intestine, with 30 figures in the text. 2. A. E. Boycott: Note on the Muscular Response to two Stimuli of the Sciatic Nerve in the Frog, with six figures in the text. 3. A. Haig, M.D. Oxon.: Some Remarks on the Excretion of Uric Acid and its Relation to

Solubility. 4. W. B. Hardy: On the Structure of Cell Protoplasm. In addition to these original articles there are included in the part the Proceedings of the Physiological Society.

New Inventions.

AN IMPROVED NEEDLE-HOLDER.

HITHERTO needle-holders of any use have been too expensive and not always capable of being readily rendered aseptic. The illustration below shows an improved form of aseptic needle-holder which has been introduced by Messrs. Arnold and Sons of West Smithfield and which possesses distinct advantages over those at present in use. (1) It is made in two pieces only; (2) it is very simple in construction and there are no complicated



Holder holding needle. Holder taken to pieces for cleaning.

parts to get out of order; and (3) it is very cheap. The jaws open by compressing the spring handle. This being the case we think it possible that their grip might loosen if the operator were trying to pass the needle through very tough tissue for he would instinctively tighten his grip on the handle. To obviate this we would suggest the addition of a stop-plate or catch, easily removeable, which would prevent when necessary the sliding of the one blade on the other. The instrument may be easily boiled when taken to pieces.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 8th, the President, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., being in the chair.

On the recommendation of the Court of Examiners the Council amended Clause 4, Section 1, of the regulations for the Diploma of Fellow. The effect of the alteration is that the first winter session if spent at a recognised science institution may be counted in lieu of one of the three winter sessions at a recognised medical school required for the first examination for the Fellowship of the College.

A draft memorial was received from some Members of the College cordially endorsing the proposal that power should be obtained to confer the Fellowship of the College upon persons who are not Members and asking the Council to include in the proposed supplementary charter some scheme for the representation of Members of the College upon the Council. The Secretary was directed to write in reply that it had been determined to include only one matter in the application for a new charter as it was inopportune to introduce anything else.

The draft petition and draft charter relating to the institution of an Honorary Fellowship were presented to the Council and were approved with the exception that Members of the College are to be eligible for the Honorary Fellowship and that the number of Honorary Fellows is never to exceed 50. It was resolved that a meeting of Fellows and Members should be summoned for Wednesday, July 5th, 1899, at 3 P.M., to consider the draft petition and charter, and that copies of these documents should be supplied to Fellows and Members applying for them.

The following examiners were appointed:—

Examiners in Elementary Biology under the Examining Board in England.—Peyton T. B. Beale, Frederick Gymer Parsons, Thomas William Shore, and Thomas George Stevens.

Examiners in Anatomy and Physiology under the Examining Board in England.—*Anatomy:* Stanley Boyd, William Bruce Clarke, Arthur Robinson, and Arthur Thomson. *Physiology:* John Rose Bradford, George Alfred Buckmaster, and Leonard Erskine Hill.

Members of the Board of Examiners in Anatomy and Physiology for the Fellowship of the College.—*Anatomy:* James Ernest Lane, Berkeley G. A. Moynihan, Frederick Gymer Parsons, and Alfred Harry Young. *Physiology:* Thomas Grigor Brodie, D'Arcy Power, Ernest Henry Starling, and William Henry Thompson.

Examiners in Midwifery under the Examining Board in England.—William Radford Dakin, Walter S. A. Griffith, Arthur H. N. Lewers, and Herbert Ritchie Spencer.

Examiners for the Diploma in Public Health.—Part I.: Arthur Pearson Luff. Part II.: Sydney Arthur Monckton Copeman.

Mr. Henry Morris was elected a member of the Court of Examiners.

The Secretary laid before the Council a letter from the Royal Institute of Public Health forwarding a copy of a letter to the First Lord of the Treasury and the Lord President of the Council relative to the appointment of a medical officer to the Education Department and asking the College to make a similar representation.

PRESENTATIONS TO MEDICAL MEN. — On the occasion of the presentation at the Saron Hall, Aberaman, on May 31st, of certificates to the ambulance students Mr. Thomas Finney, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., the instructor, was the recipient from the class of a valuable walking-stick as a token of appreciation of his services.—On May 31st Mr. C. V. Dingle, M.D., B.S. Durh., who 12 months since left Newcastle to take the position of medical officer of health of the Middlesbrough Corporation, was the recipient of a testimonial on the occasion of his approaching marriage from the public officials of the former town and the chairman of the Sanitary Committee as a mark of esteem and goodwill. The testimonial consisted of a silver tea-service. — Mr. Charles White, M.R.C.S. Eng., the senior medical practitioner of Warrington, attained on June 5th his seventieth year and his professional brethren marked the event by making him a presentation of plate. Mr. J. H. Gornall, the medical officer of health, made the presentation at Mr. White's residence, Dr. G. W. Joseph and Mr. J. S. Sherratt and Mr. E. A. Fox being present and joining in the congratulations offered to Mr. White on the auspicious anniversary. Mr. White is not only well known but highly respected in the borough.—Dr. J. Scott Riddell, teacher of the Aberdeen city police ambulance class, has received from the officers and men a gift in the shape of a silver cigar-case inscribed as follows: "Presented to J. Scott Riddell, Esq., M.D., by Aberdeen Police Ambulance Class. 1899." The presentation was made by Chief Constable Wyness on the occasion of the distribution of certificates.

POISONING BY SAUSAGES.—At St. Marychurch, Torquay, on June 5th, an inquest was held upon the body of a man, aged 71 years. The evidence showed that a few days previously the deceased purchased some sausages at Torquay and after having eaten them he was taken ill and eventually died. A post-mortem examination showed that death resulted from eating unwholesome food which caused ptomaine poisoning. A verdict of "Death from misadventure" was returned and the jury warned vendors to be careful as to the condition of the sausages at the time of sale during hot weather.

THE LANCET.

LONDON: SATURDAY, JUNE 17, 1899.

THE recent session of the General Medical Council was remarkable not only for the length of time over which it extended—10 days—but for the nature of the business which occupied the attention of the members. It is becoming more and more evident that the General Medical Council is a semi-public body, intermediary as it were between the State and the public on the one hand and the medical profession and its various organisations and corporations on the other. Hitherto it has kept well within the bounds of its most obvious functions as defined in the Acts and has even, perhaps, been slow to recognise all that was involved in its responsibilities, being disposed to take an easy view of its duties and to let the great profession over which (in a sense) it presides take its own course and look after its own interests and morals. The Council has now found out that Parliament did not create it for strictly limited purposes and that more is expected of it than the merely clerical duties of registration or a formal and courteous peep into the methods of examination employed by the various educational bodies. Both the Government and the profession are now looking to the Council for the solution of difficult questions and on the wisdom and moderation with which it treats these questions will depend in a great measure its future history. If it is to act effectively and withal promptly and justly it will have to procure some amendment of the Acts under which it works, while the concession of such amendments will depend on the use which the Council makes of its present powers. "To him that hath shall be given." The most serious lesson of the late meeting was the demonstration that the function of the Council is hindered by the limited and uncertain powers of the individual bodies represented so powerfully in the Council. No time must be lost in the adjustment of these powers and of the machinery for bringing them into coördination with the central power of the General Medical Council; and there is reason to hope that by November a moderate Amendment Bill may be prepared which the Government will be willing to accept, especially if in the meantime the profession displays unanimity and supports the Council in the wise use of its present authority.

In the multifarious business of the late meeting on which it is our duty to comment the first place must be given to the action of the Council in regard to medical aid associations. Whether we regard the conciliatory action of the Council in respect of medical aid associations composed of friendly societies in whose ordinary procedure the paid canvasser does not appear, or its more stern attitude towards those associations promoted by commercial companies and worked by wholesale processes of advertising and canvassing, in either case we cannot fail to see that the Council has taken a large view of its powers. Therefore the Board of Conciliation has our best wishes, but we must make this proviso—that the question of wage limit be sooner or later, formally or informally, brought into the purview of the Board. But while we think so we would urge on the profession not to make this a hindrance to the constitution of such a Board. We speak with some authority on this subject. It is recognised that through our Special Commissioner we have illustrated the wide and various bearings of this question throughout the land and even in foreign countries. And we have shown that if the profession is driven to it it can hold its own and put the medical associations and friendly societies in an isolated and unfavourable position. The Board of Conciliation should end all this strife, the more so if, as the General Medical Council tells us, the leaders of friendly societies recognise the inadequate treatment of their medical officers and are anxious to deal more liberally with them. It will be time enough after the Board has been constituted to show that only by the introduction of a wage limit can fair treatment be ensured to the medical officers of these societies. In the interval between now and November the various medical, defence, and medico-ethical societies will have the opportunity of considering the whole question and of suggesting nominations for the Board. They should confer with each other and agree on half-a-dozen names. For this purpose the whole profession is before them, excepting the members of the General Medical Council who are excluded by the fact of their judicial functions. It is a significant fact that there was no vote taken against the Board of Conciliation in the Council. The division was between those who voted for it—20—and those who did not vote at all—eight. Our columns will be open to discussion of the best method of constructing this Board and we look hopefully towards the friendly settlement of questions which now cause much friction. Of one thing we are certain—the medical profession only wants justice.

The Council showed proper discrimination in dealing with this matter. It passed a very significant resolution in connexion with another set of medical aid associations—those promoted by commercial companies who send the professional canvasser round the town and urge the patients of other practitioners to join their associations. Dr. GLOVER read to the Council a graphic illustration of this system which in some districts threatens to ruin medical practice and to demoralise practitioners who have to contend against it as well as those who profit (save the mark) by it. The Council has given notice that any practitioner who abets this system of canvassing and is proved to do so will incur its strong disapproval, and after due warning may be charged with infamous conduct in a professional respect, with its inevitable punishment of erasure from the Medical Register. It is for the medical officers of these associations to protect themselves. They would not personally canvass the patients of another medical man. It is intolerable that they should do so under cover of a commercial company. They may have acted inconsiderately. But the resolution of the Council should open their eyes, as it will leave them without pity for any punishment which they may incur. This resolution is expressed in terms of studied

moderation. But it will be generally approved by the profession, as will any future action that may be taken against practitioners who continue to offend against the sound and ancient opposition of the profession to advertisement.

THE report of the Pharmacopœia Committee to the General Medical Council touches upon many points of interest both to medical practitioners and to pharmacists, and in its opening sentence it also serves to relieve any lingering anxiety about the reception of a work marked by such radical changes. The Pharmacopœia Committee have to report upon the reception accorded to the volume, upon the steps being taken to accumulate material for the next Pharmacopœia, and upon the work which has already been done in connexion with the promised Indian and Colonial Addendum. The reception of the volume must have surprised and gratified all who remember the somewhat chequered career of former Pharmacopœias. It has been submitted to rigorous criticism without the detection of any errors of fundamental importance, but the success of a book is really to be gauged not by the criticisms but by the sale. Notwithstanding the increase in the price—an increase necessitated by the cost of production—the report states that 25,225 copies have passed into circulation and that the stock in hand is running low. These figures no doubt represent the first great rush for the new standard and it is not to be expected that they can be kept up in ensuing years, but they must have sufficed to clear the expenses incurred and to leave a margin of profit which will doubtless be applied to the preparation of the next Pharmacopœia. It is true that the circulation to a large extent depends upon the number interested in maintaining their stock-in-trade up to the official standard, but an important and flattering criticism, which has increased the circulation, is afforded by the official adoption of the Pharmacopœia by two colonies, Queensland and Victoria.

At the November meeting of the General Medical Council there were indications of a desire to obtain the frequent, or even constant, coöperation of the pharmaceutical societies of Great Britain and Ireland. These societies have appointed Mr. C. EKIN, Dr. W. INGLIS CLARK, and Mr. R. J. DOWNES to confer with members of the Pharmacopœia Committee and already one conference has been held at which the chairman, Dr. LEECH, presided. These meetings must add largely to the value of the next volume, since they afford opportunities for the interchange of ideas between physicians and pharmacists and for the discussion and the estimation of the value of sundry criticisms.

A most important innovation has been recommended by the Committee and adopted by the Council in connexion with the investigations in pharmacy and pharmaceutical chemistry which are to be made by experts. Hitherto, although such work was generously undertaken at the suggestion of the General Medical Council or of the Pharmaceutical Society, the results were considered to be confidential reports and the labourers were not individually credited with the good work performed. The materials supplied were duly considered and utilised and acknowledgment of indebtedness was made in general terms in the preface. It is now proposed that the publication of such reports shall in future be authorised by the Pharmacopœia Committee; and in favour of this innovation lies the obvious fact that the reports will be submitted to criticism and, if need be, to further investigation prior to the incorporation of the results in an authoritative work where, whether right or wrong, they must remain until a new Pharmacopœia is issued. It is even possible that when the credit and the responsibility are thus definitely assigned to individuals the work will be approached in a somewhat different spirit.

It will be remembered that in a report to the General Medical Council last November some indications were given of the probable scope of the proposed Indian and Colonial Addendum. This report has been very widely circulated under official conditions which should entail prompt attention, and already a large number of letters has been received from many of the medical and pharmaceutical authorities in India and the British Colonies. The interest which is now being shown in tropical diseases may perhaps add largely to the amount of material which must be considered by the Pharmacopœia Committee, since it is reasonable to suppose that many medical men in this country who have had experience in our colonies will be anxious to coöperate with those who are still locally engaged in active work. We gather from the report that Surgeon-General G. BIDIE has already led the way in this direction.

LAST week, as our readers know, those who took part in the campaign on the Nile of 1896–97–98 which culminated in the battle of Omdurman, the capture of Khartoum, and the overthrow of the power of the KHALIFA, received a Parliamentary vote of thanks for their services. In the Commons the thanks of the House were embodied in the form of a series of resolutions introduced in an eloquent and excellent speech from the First Lord of the Treasury and seconded by Sir H. CAMPBELL-BANNERMAN, the Leader of the Opposition. There was, however, one very striking and disappointing feature connected with the proceedings. The labours of the medical officers accompanying the army on the occasion in question were not recognised and the list of names of those who had rendered distinguished services did not include that of a single medical officer. The Surgeon-General upon whom the responsibility falls is the representative of the medical branch of the service; the work done was eminently satisfactory, and in the words of Lord KITCHENER "the medical arrangements were so conducted as to afford the maximum of comfort with the minimum of suffering."

That Mr. BALFOUR is an ingenuous, large-minded, and independent statesman his political opponents as well as his party followers generally recognise, but he was, we may assume, simply the mouthpiece of the military and War Office authorities on the occasion and followed, we regret to say, the traditional line of action where the medical service is concerned. It seems to us that the explanation which he proffered to the House in reply to Dr. FARQUHARSON'S protest on behalf of the medical profession was a singularly weak and unsatisfactory one. Surgeon-General TAYLOR, upon whom the responsibility fell of directing all the field medical arrangements and who was

in command of his own branch of the service, has the rank of a general officer; the distinction between combatants and non-combatants has moreover been abolished by recent regulations, and we should therefore have thought that the Government would have seized the first opportunity of giving practical effect to their own measures. It is all very well to talk of the great and distinguished profession to which the honourable Member for West Aberdeen belongs, but why should every opportunity be neglected of showing that it is so regarded? If the custom of the service be such as that laid down in the House of Commons all we can say is that it is a custom to be more honoured in the breach than in the observance and the sooner that the tightness of this piece of red tape be loosened the better. The army medical services admittedly did excellent, very arduous, and long-sustained work in Egypt, without which Lord KITCHENER and his troops would never have accomplished what they did; and medical officers naturally expect to receive the thanks of Parliament in common with other officers by the selection and inclusion of the name of one of themselves in the list.

Now that we are touching upon this subject we may add that the amount of work and responsibility which fell to the lot of the medical services during the late campaigns on the North-West frontier of India in 1897–98 was enormous. Whether those expeditions were politically wise or not, or whether all the generals did their work equally well, are matters of opinion with which the medical services have nothing whatever to do. We have never heard, however, that there was any failure in the field medical organisation or in the provision of hospitals and a hospital service on a very large scale, but the Surgeon-General of Her Majesty's Forces in India upon whom all the labour and responsibility devolved cannot be said to have been extravagantly rewarded by having the honour of a Companionship of the Bath conferred upon him.

DURING recent years the investigation of the life-histories of certain diseases, notably of the nervous system, has gradually brought about a conviction that the starting-points in the etiology of nervous diseases in an adult must sometimes be looked for in the affections of childhood in which the nervous system has been involved. In the *Journal of Nervous and Mental Disease* (May, 1899) Dr. WILLIAM HIRSCH gives very full records of an interesting case and calls attention to the fact that infantile spinal paralysis may give rise to spinal disease in later life. The case is as follows.

A man, 45 years old, a tailor, and free from indications of syphilis, twice married and in the enjoyment of perfect health up to three years previously, began at first to notice a stiffness and weakness in the left leg which gradually became worse. After some time the right leg also became affected. He soon became unable to use his leg in working his sewing machine and he was not able to stand or walk for any length of time. The upper extremities remained unaffected and there were no sensory symptoms whatever. The functions of the bladder and rectum were unimpaired and sexual power was not diminished. Examination revealed an atrophy of some of the trunk- and shoulder-muscles and especially of the deltoid, supra-spinatus, and infra-spinatus of the right side. These muscles also exhibited fibrillary tremors and the reaction of degeneration. There was no atrophy in the muscles of the lower extremities and their electrical reactions were normal. The knee-jerks were exaggerated and there was ankle clonus on both sides. The plantar, cremasteric, and abdominal reflexes were present. The reflexes in the upper limb were not increased. Sensation to touch, pain, and temperature was normal in all parts of the body and the *muscular sense was unimpaired*. Both speech and pupillary reactions were normal and the ophthalmoscope revealed nothing abnormal. Besides the atrophied shoulder-muscles above mentioned there was marked atrophy also in the biceps, triceps, and pectoral muscles, also on the left side. (It appears that when the patient was a child of two years of age he had an attack of infantile paralysis which left behind a partial atrophy of the left upper extremity.) The lower limbs now gradually became more spastic and rigid so that within a few months he was unable to walk at all and he began to suffer from shooting pains in the legs. These pains were so intense that he had to be given hypodermic injections of morphia at frequent intervals. Both sets of symptoms progressed in severity and he became completely bedridden. The lower limb muscles atrophied and assumed a condition of marked contracture (extreme extension and adduction), and a progressive paralysis of the upper limbs also now supervened till both arms were completely paralysed and only the fingers and one wrist could be moved at all. Cutaneous sensibility was retained and the functions of the bladder and rectum were unaltered. He now developed a bulbar paralysis with difficulty of swallowing and died without developing any other symptoms.

The necropsy which was made eight hours after death showed the following changes in the nervous system. The brain seemed normal in colour, consistency, vascularity, and general appearance. The bulb and spinal cord, however, showed changes and on microscopical examination the following lesions were found. The cervical cord from the second to the fifth segment showed a considerable atrophy and destruction of the cells in the left anterior cornu, with dilatation of pericellular and perivascular lymph-spaces and proliferation of blood-vessels. There was marked degeneration in Goll's column, especially next the septum. On the right side similar changes but to a far less extent were present. In the fifth, sixth, and seventh cervical segments similar changes were found and in addition a degeneration in the lateral columns (pyramidal tracts) most marked on the left side. At the eighth cervical segment (which supplies the fingers) the grey matter and most of the cells appeared to be normal, the degeneration being limited to the white substance (pyramidal tract). In the dorsal segments there was much diffuse degeneration throughout all the grey substance and at the seventh dorsal segment the degenerations were so extensive that they had the aspect of a transverse myelitis. In the lumbar cord the degenerations were still abundant, but less so in the right half, which contained a fair number of undestroyed cells. Finally, the bulb showed marked degeneration and loss of cells in the hypoglossal, vago-glossopharyngeal and ambiguous nuclei, and in adjacent parts of the substantia reticularis.

CHARCOT,[1] BALLET, DUTIL, and others were the first to point out this fact and to give isolated cases illustrative of the same and altogether some nine cases have thus far been published. The clinical symptoms in all the (published) cases indicate an extensive affection of the motor cells of the spinal cord, sensory symptoms being entirely absent, and in every case, with the doubtful exception of one case recorded by LAEHR in *Charité Annalen*, 1894, the diagnosis of progressive muscular atrophy, mostly of the Aran-Duchenne type, could be made. There is, however, an interesting difference among these cases as to their relation to previous infantile paralysis. Thus, in CHARCOT'S case, for instance, the infantile paralysis affected the lower extremities, while the later disease began in the muscles of the shoulder. In other cases the atrophy of the later (adult) disease started in the parts previously affected as well as in healthy parts, while in LANGER'S case,[2] in which the poliomyelitis had affected both right extremities and a small portion of the left leg, the later disease was strictly confined to the muscles of the same parts.

The pathogeny of the later disease was generally accepted in the form propounded by CHARCOT, according to whose views there existed in some individuals a certain disposition, a kind of vulnerability of the ganglion cells of the anterior horns which at one period of life might give rise, under the influence of morbid agencies, to an acute anterior poliomyelitis and at another and later period to a progressive muscular atrophy, the two diseases being thus manifestations of a single and fundamental original morbid condition. Further, the originally damaged parts, though apparently restored to health, might under later stresses of illness reveal themselves also as fresh foci of disease. This view has been accepted by BALLET, DUTIL, STRÜMPELL, and others, and seems to accord best with known facts.

[1] Leçons du Mardi, 1889.

[2] Alte infantile Poliomyelitis mit folgender Muskelatrophie, Jahrbuch der Wiener K. K. Krankenanstalten, Band v., ii. Th.

Annotations.

"Ne quid nimis."

THE SANITARY CONDITION OF ST. PANCRAS.

IN our last two issues we have referred to a report by Dr. Hamer, assistant medical officer of health of the London County Council, on the sanitary condition of St. Pancras and to a report by a special committee which was appointed by the vestry of St. Pancras to inquire into the subject matter of Dr. Hamer's report. Dr. Hamer had found in St. Pancras many insanitary conditions requiring remedy and had come to the conclusion that seven additional inspectors should be appointed. The committee, however, has recommended the appointment of only two additional inspectors and has, we must presume, satisfied itself that its existing staff is numerically sufficient to deal with the conditions which Dr. Hamer has pointed out. The committee has laid stress on the "demoralisation" of the sanitary staff, has referred to their "discontent" and "insubordination," and, in so far as these disturbing influences have prevented the proper carrying out of their duties, we have recognised that it is right that the committee should not seek a remedy only in the multiplication of sanitary inspectors. We have therefore written to the vestry asking for the material which would have enabled us to form some opinion on the matter but have been unable to obtain it as the report is out of print. We much regret that this is the case, for while we are desirous of doing full justice to the St. Pancras Vestry and its special committee we are, in the absence of this evidence, unable to accept the committee's conclusions, which are widely different from those of Dr. Hamer. The vestry have had in Dr. Sykes an officer whose capacity and zeal are generally recognised by those familiar with sanitary administration, and the special committee's condemnation of the vestry's staff will not alone suffice to shake the confidence of the public in the officers. There is, indeed, not sufficient reason for doubting the soundness of Dr. Hamer's conclusions and the only question which remains is whether the London County Council will be satisfied with the small addition to the staff which the vestry has decided to make. Judged by the reports before us we fail to see how with this addition St. Pancras sanitary administration will materially differ in the future from the administration of the past.

PRECAUTIONS IN COAL-MINES.

IN 1894 the report was issued of the Royal Commission on Explosives from Coal-dust in Mines and the conclusions contained therein promised, if adopted, to place the coal-miner under much less risk. As was shown early in the same year by Mr. Henry Hall, one of Her Majesty's Inspectors of Mines, coal-dust is frequently the cause of disastrous explosions. The experiments upon which Mr. Hall based his valuable conclusions related to the causes which lead to the ignition of the finely suspended coal-dust in the air of coal-mines. The use of gunpowder for blasting or opening purposes was subsequently condemned, as the flame of a "blowing-out" gunpowder shot instantly ignites fire-damp, or a coal-dust laden air, the latter giving a very violent result or explosion. On the other hand, the so-called high explosives were shown to be incapable of igniting or exploding coal-dust. The abolition of gunpowder therefore for blasting purposes in coal-mines was recommended in favour of the adoption of certain high explosives. This conclusion led to an explosives order being issued which came into effect nearly two years ago. Writing to the Home Secretary Mr. Hall now says in his report for the year 1898 that "it has proved a success beyond all expectation and you, Sir, are to be congratulated on having initiated the legislation which has achieved such glorious results. The deaths from explosions of gas and dust for the last two years are a record; the two years together have only killed 46 persons, a figure less than that recorded for any *single* previous year. The most favourable year was 1888 when 49 persons were killed, and taking any two previous consecutive years the best were 1891 and 1892, when 174 lives were lost, as against 46 for 1897 and 1898; thus we have apparently attained that which in the past has set mining skill and care at defiance." It is remarked, further, that "no doubt there will still be people who will prove impervious to the logic of these facts and they will tell us it is a mere coincidence, and should this immunity continue for the next five years they will still try to maintain that view." One of the chief objections raised against the employment of safety explosives instead of gunpowder was that the former led to the evolution of poisonous fumes, but it appears as a final answer to this that the only complaint made about fumes during the year came from a mine where gunpowder was the explosive used. It even seems probable

that in regard to fumes gunpowder is worse than the nitro-explosives and Mr. Hall quotes an example of a gunpowder pit which he inspected where the fumes were so thick and blinding that the manager lost his way and he had some difficulty in finding it again. We expressed the opinion in these columns more than five years ago that if the recommendations of the Royal Commission could be put in force without delay there would be little doubt that the risk of explosions in coal-mines would be greatly limited. Soon after the report of the Royal Commission was issued a terrible explosion occurred in the Albion Colliery in South Wales by which nearly 300 lives were lost. This was known to be a fiery and dusty mine and it was not certain whether the preventive measures of using exclusively high explosives for "blowing-out" purposes and of keeping the mine watered had at that time been taken. Mr. Hall's report deals with only one colliery district, the Liverpool district, and it is to be hoped that the reports from other districts may be equally satisfactory. We imagine that this must be the case, for happily we have heard less frequently of late of those frightful disasters to which the colliery districts are liable. If so, the importance of the experiments which suggested the preventive measures indicated and now enforced cannot be too highly estimated.

TYPHOID FEVER IN HOLBORN-CIRCUS.

DR. SEDGWICK SAUNDERS, the medical officer of health of the City of London, in his report on the health of the City for the five weeks ended May 27th, 1899, gives an account of an outbreak of enteric fever in a large business house in Holborn-circus which presents points of some interest. The outbreak occurred between Jan. 23rd and Feb. 16th and during that time 53 of the inmates were attacked, the greatest number of cases in any one day being eight. The total number of persons employed in the establishment was 620, but of these only 416 slept on the premises, though an additional 71 took dinner and tea in the establishment. The attacks were apparently confined to the 416 persons who resided on the premises, there being, it seems, no cases among the remaining 204. In other words, the 416 residents were presumably exposed to some conditions which were foreign to the remaining 204. Dr. Sedgwick Saunders has been unable to discover any connexion between the outbreak and polluted water or milk, and although the inquiry is still incomplete suspicion appears to attach to the drainage system which is manifestly defective. There would, however, be a difficulty in explaining the outbreak by a thesis of this nature since the exemption of the 204 non-residents would militate against its acceptance. The outbreak has, too, some of the characters more commonly associated with specifically polluted food of some kind than with one due to drainage defects. The sex distribution of the attacks does not throw much light on the matter, as although but five females were attacked the percentage incidence on males was but slightly in excess of that upon females, a circumstance which in itself tends to discredit a view that contaminated milk was the cause of the outbreak. Bacteriological examinations were made by Dr. Washbourn of specimens of water, milk, and butter, but with negative results, and clearly but little value is to be attached to bacteriological investigations in an outbreak of this kind, since the specific pollution of whatever may have been the causative agent was evidently of a transitory nature; indeed, it is even possible that all the cases may have been infected before the first of the group was recognised. Evidence must be sought for rather in the distribution of the cases and in a detailed examination of the several articles of food consumed by those attacked as contrasted with those who escaped. Dr. Sedgwick Saunders acted with great promptitude and at once took all precautionary and preventive measures. The milk was sterilised and the supply was changed, the water cisterns and mains were cleansed, and the patients were rigidly isolated and carefully nursed; the fatality rate amounted to 11 per cent.

THE BIRTHDAY HONOURS.

IN the list of birthday honours which we published last week we inadvertently omitted two names—those of Dr. John Sibbald, M.D. Edin., F.R.S. Edin., &c., and Major William Babtie, R.A.M.C. Dr. Sibbald, who lately retired from his position as Commissioner in Lunacy for Scotland and who is well known as an authority in questions connected with lunacy, particularly with regard to administrative matters, received the well-deserved honour of knighthood. Major Babtie has been made a C.M.G. in recognition of his services in Crete in connexion with sanitary matters. We congratulate Sir John Sibbald and Major Babtie, C.M.G., and regret the week's delay in the expression of such congratulation.

A SINGULAR CASE OF MASTOID ABSCESS.

IT is a generally accepted fact that the cells in the mastoid process do not develop until after the third year of life and it follows that mastoid abscess of the kind found in the adult is practically unknown in infancy. An apparent exception to this rule is quoted in the *Journal de Clinique et de Thérapeutique Infantiles* of June 1st, 1899. The case was reported by Dr. Lermoyez to the Société Française d'Otologie, Laryngologie, et Rhinologie and was that of a child, aged two and a half months. The starting-point of the trouble as usual was an acute purulent otitis. After three weeks an abscess was found beneath the upper extremity of the sterno-mastoid. A cavity in the mastoid process full of carious bone and pus communicated on the one hand with the mastoid antrum and on the other by a small opening in the digastric fossa with the abscess just described. The whole end of the process was removed, the cells and antrum were cleared out, and the child was well in six weeks. This morbid condition which is known in France as the mastoiditis of Bezold is very rare if not unique in an infant and its occurrence almost at the time of birth is of equal interest to the anatomist and the surgeon.

THE NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

FROM details recently published we are pleased to note that the progress of this society during the past year has been satisfactory. The net income has amounted to £51,319 as compared with £47,917 in the previous year, and it is a significant fact that the increase from ordinary contributions alone is £4925. The expenses for all purposes amount to £52,773 as against £53,000 for the year before. These proofs of the society's continued popularity and of the economy observed in its administration are not discounted by the measure of success which has attended its efforts. As many as 28,165 cases of alleged improper treatment have been investigated. In 21,096 of these, with some unavoidable exceptions, the offenders were cautioned and in 18,223 cases subsequent supervision showed that the warning had been effectual. In 2873 cases the offenders were prosecuted, a conviction being obtained in 96·27 per cent of this number. By far the most prevalent forms of cruelty, as we have had occasion to note before, are neglect and starvation. These together account for 21,755 of the whole number of wrongs recorded. Ill-treatment and assault come next with a total of 3748, then 1240 cases of exposure for begging purposes, then various less common forms of evil doing. It is therefore abundantly proved even by the statistics of a single year that human nature, exposed to

the pressure of poverty or of vice and the other survivals of savagery which remain in it, cannot always be trusted even with its own most natural charge. We may hope that ultimately the moral forces which have refined the manners of a majority will be able to civilise the mass and that cruelty will become practically extinct. In the meantime fairness and mercy, now happily furnished with the instruments of law, must be allowed to operate for the protection of the weak against the strong and brutal. Among the most efficient of such instruments is the National Society for the Prevention of Cruelty to Children which needs no stronger commendation than the record of its doings.

THE APPROACHING ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MONDAY, June 12th, was the last day on which the nominations of candidates for the two vacancies on the Council could be received and the names of four candidates have been given in. The two vacancies arise from the terms of office of Mr. T. R. Jessop of Leeds and Dr. Ward Cousins of Southsea having come to an end; these two gentlemen, however, offer themselves for re-election and the two other candidates are Mr. H. W. Page, surgeon to St. Mary's Hospital, London, and Mr. Jordan Lloyd of Birmingham. The election will take place on Thursday, July 6th, and voting papers will be sent to all Fellows in the British Isles. It will not be necessary to apply for them; Fellows may, if they prefer it, vote personally.

THE INSTITUTE OF CHEMISTRY.

AFTER some years of struggle the Institute of Chemistry has at length attained an importance amongst examining bodies which is now being very generally recognised. The Institute of Chemistry was founded with the object of conferring some qualifying mark upon those following chemistry as a profession. It was not until 1885 that a Royal Charter was obtained, in consequence of which the Institute rapidly assumed the position of a governing and examining body comparable in character with those of the medical profession. The examinations, which are thoroughly practical in character, have been brought up to a high standard, while amongst other worthy aims not the least commendable is that of establishing a code of professional conduct. The Fellows of the Institute now number nearly 1000. The examination laboratories were specially designed some years ago for the practical examination in the premises of the Institute in Bloomsbury-square. Each candidate presenting himself for examination must first satisfy the examiners that he has been through a thorough course of systematic study at an institution of recognised educational standing. We have frequently referred in these columns to the fact that no definite qualifications of the public analyst appointed under the Food and Drugs Act are required. In a clause in this Act it is simply stated that he must be a person possessing "competent knowledge, skill, and experience," without any reference to the possession of a diploma. We have consequently represented that the Fellowship of the Institute of Chemistry might meet the case. As a matter of fact, the Local Government Board have comparatively recently announced that they will accept the qualifications of Fellowship and Associateship of the Institute of Chemistry as satisfactory evidence of competence in chemistry, and in order to meet the further requirements of the Board the Council have lately decided to establish an examination in therapeutics, pharmacology, and microscopy. That the Institute of Chemistry is well supported was evident on the occasion of its last annual dinner which took place on June 8th at the Trocadero Restaurant. The President of the Institute, Dr. Thomas Stevenson, was in the chair and there were present representatives of the Board of Agriculture, certain of the Presidents of the learned societies, and several distinguished men of science. The progress of the Institute was the subject of the many speeches which were made. We cordially join in congratulating the Institute on this progress and not the less because it aims at raising the chemical profession to the same level of dignity as other learned professions.

THE CASE OF DOCKRELL v. DOUGALL: A TESTIMONIAL TO DR. DOCKRELL.

READERS of THE LANCET will remember the details of this case and that in extending our sympathy to Dr. Morgan Dockrell in the matter we felt bound to record a protest against the treatment which he had received. We did not, and do not, consider that either the jury in the first instance or later the judges in the Appeal Court really understood the deep importance of the matter at issue. We are therefore glad to learn that a testimonial fund has been started with the object of making a presentation to Dr. Dockrell "which," to quote the letter of those responsible for the movement, "shall express the admiration of his medical brethren for his courage and public spirit and in some measure recoup him for the very heavy costs in which he has been mulcted." The case involves a principle of the highest importance to all our readers, for Dr. Dockrell's two attempts to secure by law the exclusive right to control the use of his own name were made in the interests of every member of the profession. We hope, therefore, that many favourable responses will be sent to Mr. Ernest Clarke, 3, Chandos-street, Cavendish-square, W., who is acting as honorary treasurer of the fund.

VITAL STATISTICS OF THE BURGH OF GOVAN.

THE burgh of Govan on the Clyde is fortunate in numbering among its inhabitants a member of our profession who possesses the inclination as well as the ability to prosecute an independent and laborious inquiry into the causes of mortality in that burgh. Dr. W. G. Barras of Bellahouston has forwarded to us a copy of a lengthy report which he has recently presented to the provost, magistrates, and commissioners of Govan, in which he gives very complete particulars of the local vital statistics, and he has been careful to make his book as interesting as possible to dwellers in parts of the kingdom which are remote from Govan by the addition of a valuable introduction which gives a general and topographical history of the burgh from very early times. On the authority of Fordun we learn that the first historical reference to Govan dates back to A.D. 565, in which year a monastery was founded there by Constantine, of which he was the first abbot and in which he was buried after having suffered martyrdom. As early as the sixteenth century Govan, or Meikle Govan as it was then called, appears to have ranked among the largest towns of Scotland. At the period referred to what is now the flourishing city of Glasgow was no more than a village situated above Govan on the Clyde, both places owing their prosperity to the coal and iron industries of Lanarkshire, aided, of course, by their commanding position on the banks of a navigable river. Govan at its largest was a hamlet numbering but a few hundred inhabitants, mostly engaged in agricultural pursuits or in supplying the Glasgow market with fruit and vegetables. Another of its staple industries was that of salmon fishing, for which it was long famous, and this occupation was continued down to a period within the memory of persons still alive. In the first decade of the

current century handloom-weaving was the chief industry of the village; but about the year 1850, when shipbuilding began to revolutionise the trade of the district, Govan suddenly sprang into importance and in the year 1864 it acquired the dignity of a burgh. Ever since that date the town has rapidly and steadily increased in size, until at the present time it stands seventh in the list of large Scottish towns and contains a population of nearly 73,000. In the course of the last 35 years, which is the period covered by Dr. Barras's inquiry, the mortality of Govan, like that of Glasgow and most other large towns in England and Scotland, has varied considerably. The mortality reached its highest point in 1864—namely, the year of incorporation—when it amounted to a rate of 33·2 per 1000; it was lowest in the year 1894 when the rate fell to less than half, or 15·5 per 1000, the rate in the entire period of 35 years having averaged 22·5. The tables which illustrate Dr. Barras's report are systematically arranged, the classification adopted being that of the Registrar-General, and a useful summary is inserted giving a general idea of the teaching of the tables; without this summary the entire report would lose much of its value and interest to the general reader. In the first of his tables Dr. Barras shows the mortality from all causes and also from infectious diseases in quinquennial periods from the year 1864 onwards. From this table it appears that there has been a marked decrease in the later five-year periods as compared with the earlier, both in the deaths from all causes and in those from diseases of the zymotic group. Calculated on the present population of 73,000 the difference between the mortality in the first and in the last quinquennium represents a saving of 803 lives per annum. Taking the average for the 10 years 1889-98 it appears that Govan has shown a death-rate which is lower than that of all Scotland and also lower than that of the eight principal towns in the aggregate. Considering the occupation of its inhabitants and the conditions under which some of them live such a rate reflects great credit on the local public health department, who are evidently doing their utmost to improve the health and prolong the lives of the people. In quoting the mortality at ages under five years and above 70 years Dr. Barras puts the rate at 12·1 and 1·2 respectively per 1000 of the population. We presume, however, that the deaths at these ages are calculated on the total population and not on the population at corresponding groups of ages as is the case in England, for otherwise it would be difficult to understand how the above exceptionally favourable proportions could have been arrived at. As regards the prevalence of particular forms of disease Dr. Barras has much to say which is highly important but mainly of local interest; there is nothing which calls for particular comment in the incidence of the ordinary infectious diseases and his remarks on diseases of the constitutional and other principal classes, although of great importance to the people of Govan, are scarcely of sufficient general interest to need special notice in our pages.

TYPHOID CHOLECYSTITIS.

IN recent years cholecystitis in typhoid fever has attracted some attention. But although it was observed as long ago as 1836 by Louis only a limited number of cases have been recorded. This complication seems to be commoner than might be supposed,[1] but it rarely gives rise to distinctive symptoms. In the *American Journal of the Medical Sciences* for March Dr. C. Camac has published the following case which was under the care of Professor Osler at the Johns Hopkins Hospital. The patient was a coloured woman, aged 24 years, who was admitted to hospital after an illness of three weeks' duration marked by sudden onset, with headache and chill, vomiting, epistaxis, and abdominal pain. The chill recurred every day. On admission the temperature was 104° F. 13 intensely green watery stools were passed in one day. The abdomen was not distended or tender. On the fifth day abdominal tenderness was noticed for the first time, particularly in the right upper quadrant, where there was also dulness. About nine centimetres below the costal margin and about three centimetres from the umbilicus a rounded, fairly resistant mass was felt. In consequence of the profuse diarrhœa amœbic abscess was thought of. The Widal reaction, however, was well marked at a dilution of 1 to 70. Typhoid cholecystitis was suspected. As a means of diagnosis a long hypodermic needle was inserted into the mass; it drew off about 15 cubic centimetres of a clear urine-like fluid. The patient became more comfortable. Numerous motile bacilli suggesting typhoid bacilli were found in the fluid. As there was no evidence of suppuration operation was deferred in the hope of resolution. On the following day the patient was worse. There was great tenderness in the right hypochondrium and she was apparently suffering pain. In view of the relief afforded in Mason's case[2] a second puncture was made at the same point. But the tumour was not to be felt and only blood was withdrawn. Laparotomy was then performed by Dr. Cushing. The gall-bladder was greatly distended, the surface was dark green, the vessels were injected, and there were a few fibrous shreds at one spot. After the gall-bladder had been loosely attached to the abdominal wound 120 cubic centimetres of fluid similar to that previously withdrawn were aspirated. On opening the gall-bladder no necrotic area was found. A drainage-tube was inserted and the wound was partially closed and packed with gauze. Death occurred on the following day. At the necropsy Peyer's patches were found to be congested and ulcerated. Dr. Camac appears to regard laparotomy as the best treatment in these cases, but he admits that the results are probably as bad as in cases not operated on. Tapping he deprecates as likely to lead to peritonitis.

[1] THE LANCET, June 12th, 1897, and July 9th, 1898.

CRIMES COMMITTED BY INSANE EPILEPTICS.

THE mental alienation associated with epileptic insanity often carries with it tendencies to violence, brutality, and crime. The epileptic is prone to such excess at two particular periods of the disease—viz.: (*a*) during an attack of so-called "psychical" epilepsy (epileptic furor), or (*b*) in the post-epileptic automatic stage succeeding severe fits. It has generally been noted that as regards acts performed by the patient in the latter stage there is but little or no recollection of the deed when the patient has recovered from this condition of temporary mental automatism. Hence crimes committed by epileptics have important medico-legal aspects. In the *Transactions of the American Medico-Psychological Association* (1898, p. 203) Dr. H. E. Allison gives a valuable record of observations made by him on this subject based upon cases admitted to the Matteawan State Asylum. Out of 2080 insane offenders committed to this institution there were 70 epileptics convicted of crimes as follows. For assault, 16; for larceny, 14; for murder, 11; for burglary, eight; for robbery, rape, and forgery, four each; for arson, two; for unnatural crimes, two; and for bigamy, mayhem, perjury, vagrancy, and injury to property, one each. It will be seen that crimes against the person in the form of assault, murder, rape, unnatural crime, and mayhem constitute a total of 34, or almost exactly 50 per cent. of all the offences, and that assault and murder are the commonest forms of crimes against the person committed by epileptics. It is to be noted that vagrancy occurs but once, yet there can be no doubt that the act of wandering at large in a dreamy,

[2] THE LANCET, June 12th, 1897.

sub-conscious state is not at all uncommon in the post-epileptic stage. The condition is in many respects like that in somnambulism. Both bigamy and perjury (one case each), given in the above list, show that these offences may be committed by epileptics in the automatic stage where the patient loses all recollection of his previous history or surroundings after a fit, and, moreover, that such a condition of amnesia and alteration of personality may in some cases persist for a considerable time (days or even months) before recovery (which may sometimes, also, be equally sudden) takes place.

DEATHS UNDER ANÆSTHETICS.

A DEATH under chloroform occurred on April 18th. The patient, a woman, aged 24 years, was to be operated upon for varicose veins at the Stanley Hospital, Liverpool. A "very slight dose" was given; unusual excitement appeared "towards the end of the first stage of anæsthesia" and respiration stopped. We are not informed what method was employed, what was the duration of the anæsthesia, or who administered the chloroform. It would appear that an overdose was taken during the patient's struggles and the respiratory centre was paralysed. Dr. David Morgan of Liverpool favours us with a brief note of a death under chloroform which occurred in Liverpool on April 6th. The patient, aged 72 years, took a "drachm" of chloroform. The eyeball was removed and cardiac syncope occurred, proving fatal. Did this patient die from chloroform or because she had too little chloroform? Unless the narrators of such cases furnish the particulars as to method, duration, and symptoms it is useless to speculate upon the cause of death. Cause must anticipate effect and there is no doubt a very adequate cause, for death under chloroform can always be traced if the recorders of such cases would only reason out the facts and help their fellow practitioners by carefully and logically detailing their experiences. A death which occurred recently at St. Mary's Hospital illustrates the extreme difficulty of deciding whether chloroform can be safely substituted for ether in the later stages of an operation. The patient, a woman, aged 34 years, suffered from malignant disease of the mamma and was given ether with a view to removing the breast. During the progress of the anæsthesia some coughing occurred and chloroform was therefore substituted for ether. The patient's colour changed, the pulse ceased, and she died apparently from circulatory failure. A necropsy was held and the heart was found to be fatty. A post-mortem examination of a patient who died under an anæsthetic at King's College Hospital recently showed masses of undigested food in the stomach, some of which had entered the trachea and bronchi causing suffocation. The patient, a worker at a newspaper office, had his arm broken by machinery and he was taken to the hospital to have his injuries treated. As he had had a heavy meal he was allowed to wait two hours in the hope that his food would become digested. The A.C.E. mixture was given with the result mentioned above. In the case of a healthy man surely lavage or a hypodermic injection of apomorphine to empty the stomach is a safer proceeding than incurring the risks of vomiting during semi-anæsthesia. In the present case large masses of meat had passed into the air-passages. A fatality under chloroform is reported as having occurred at the Ophthalmic Hospital, Gray's Inn-road. The patient, a man, aged 41 years, was placed under chloroform by the house surgeon for the removal of a diseased eyeball. At the commencement of the operation the patient died suddenly. We have no particulars to guide us in attempting to explain the death. The same remark applies to the death of a child, aged 16 months, which occurred at the Charing-cross Hospital on May 8th. Two deaths in military hospitals of troopers are reported from Kilsea and Dublin; both deaths appear to have occurred early in anæsthesia and to have been referred to circulatory failure. We are indebted to Dr. Harold Dyer for careful notes of a death under chloroform which occurred recently at the Guest Hospital, Dudley. The patient, a healthy man, aged 35 years, came under treatment for the radical cure of hernia. He was a nervous man. He was prepared in the usual way and was given chloroform by one of the house surgeons, a Skinner's mask being used. After two or three minutes violent struggling took place and lasted for about half a minute. The anæsthetic was continued but the mask was held farther from the face. The pulse suddenly ceased, the pupils became widely dilated, and almost immediately respiration stopped. Upon drawing forward the tongue and performing artificial respiration three deep breaths occurred, but after that no signs of life appeared. The cause of death was "obviously heart failure, before any sign of respiratory failure." All the usual methods to restore life were adopted. The possibility of death in such cases being due to the strain imposed upon the heart by struggling must not be lost sight of, nor must it be forgotten that fatalities have also arisen from simple fright. But in the last class of case the death always occurs very early, usually within the first minute, while syncope due to violent muscular spasm is seldom met with except in persons whose heart is diseased and degenerated. In struggling the irregular, often excessive, depth of the breaths leads to an increased intake.

CHANGES IN THE SALIVARY GLANDS IN DIABETES.

IN the *Boston Medical and Surgical Journal* of May 18th Dr. H. F. Harris has published an interesting paper on this comparatively unknown subject. His attention was first directed to a possible relation between morbid conditions of the salivary glands and pancreas by the following case in which diabetes followed mumps. The patient was a farmer, aged 42 years, who had had no illness until an attack of mumps three years before. About a month after recovery he noticed that he was passing more urine than formerly, and since then the increase had slowly but steadily progressed and the other symptoms of diabetes appeared. He was much emaciated and passed in the 24 hours 6440 cubic centimetres of urine, containing 4·6 per cent. of glucose. His subsequent history is unknown. The writer found in literature several references to the fact that diabetes sometimes follows mumps. He also ascertained that by the removal of all the salivary glands in a dog slight transient glycosuria could be produced—a conclusion which had been previously established by Reale (Congress of Berlin, 1890). Furthermore, the latter experimenter produced glycosuria in this way in dogs when he had failed to do so by removing the pancreas. Since the publication of Schmackpfeffer's thesis in 1817 on diseases of the pancreas the possibility of pancreatitis arising from mumps has been admitted, but there is some doubt as to the nature of the case to which he referred. Dr. Harris could not find another case of pancreatitis due to mumps. But when it is remembered that sublingual and submaxillary adenitis, orchitis, prostatitis, ovaritis, mastitis, nephritis, and thyroiditis, have been observed, it seems probable that a gland so closely resembling the parotid as does the pancreas would at times be involved. If so, as in the parotid and testicle, atrophy might ensue. That functional alterations in the salivary glands occur in diabetes has long been known, but the condition has received little attention from clinicians and pathologists. The following case shows that profound changes sometimes occur in the salivary glands in every way resembling those found in the pancreas. A man, aged 63 years, died from diabetes complicated with pulmonary tuberculosis and gangrene of

the foot. The body was much emaciated. The pancreas was found to be very small, weighing only 35 grammes. It was hard and nodular and on section showed numerous fibrous bands. There was evidently atrophy secondary to old interstitial pancreatitis. All the salivary glands were small. Microscopically both the pancreas and salivary glands showed identical changes. There was marked thickening of the trabeculæ which bind the lobules together. In some parts all the acini of a lobule were destroyed and replaced by newly-formed fibrous tissue. The parotid acini had a diameter from 10 to 20 μ (in a normal parotid the diameter was from 20 to 25 μ). Microscopical examination of the other organs showed them to be normal.

PRESENTATION TO MR. G. A. SYME OF MELBOURNE.

MR. G. A. SYME of Melbourne, whose approaching marriage has been taken advantage of as a fitting opportunity to testify to the esteem and honour in which he is held by his brother practitioners in Melbourne, was entertained at the Vienna Café in that city on May 4th, when he was presented with a piece of plate. In a congratulatory letter his fellow practitioners, after referring to his personal qualities and his surgical ability, address him as a representative and leading man of the profession. No such compliment has previously been paid to any of the younger men in Melbourne and the occasion was made the more interesting by the circumstance that Mr. Syme was quite unprepared for such a demonstration of regard and affection. His work as a teacher both at the university and at the Melbourne and other hospitals has given him a wide area of influence and has gained him a great reputation for accuracy and thoroughness as well as for lucidity of thought and expression. Mr. Syme is to be congratulated on having earned such a demonstration of goodwill on the part of his *confrères*.

THE SANITARY INSTITUTE.

THE preliminary programme of the Eighteenth Congress of the Sanitary Institute, to be held in Southampton from August 29th to Sept. 2nd, has now been issued and includes three general addresses and lectures. Three sections will meet for two days each dealing with: Sanitary Science and Preventive Medicine, presided over by Sir Joseph Ewart, M.D. St. And.; Engineering and Architecture, presided over by Mr. James Lemon, M. Inst. C.E.; and Physics, Chemistry, and Biology, presided over by Professor Percy F. Frankland, F.R.S. There will be also eight special conferences—viz.: Municipal Representatives, presided over by Alderman T. Walton, Chairman of the Southampton Health Committee; Port Sanitary Authorities, presided over by Mr. Millar Wilkinson, Chairman of the Port of London Sanitary Authority; Medical Officers of Health, presided over by Dr. T. Orme Dudfield; Medical Officers of Schools, presided over by Dr. C. E. Shelly, consulting medical officer to Haileybury College; Engineers and Surveyors to County and other Sanitary Authorities, presided over by Mr. E. P. Hooley; Veterinary Inspectors, presided over by Mr. W. Hunting; Sanitary Inspectors, presided over by Mr. C. MacMahon, chief sanitary inspector at Torquay; and Domestic Hygiene, presided over by Mrs. Patey. The local arrangements are in the hands of an influential committee, presided over by the Mayor of Southampton, with Mr. A. Wellesley Harris, M.R.C.S. Eng., Mr. W. B. G. Bennett, Assoc. M. Inst. C.E., Mr. W. Matthews, M. Inst. C.E., and Mr. C. H. Russell, M.R.C.S. Eng., as honorary secretaries. The President of the Congress is Sir W. H. Preece, K.C.B., F.R.S., Pres. Inst. C.E. Mr. Malcolm Morris will deliver the inaugural lecture, and Baillie J. Dick, chairman of the Health Committee, Glasgow, will deliver the popular lecture. We understand that over 300 authorities, including several county councils, have already appointed delegates. In connexion with the Congress a health exhibition of apparatus and appliances relating to health and domestic use will be held as a practical illustration of the application and carrying out of the principles and methods discussed at the meetings. It not only serves this purpose, but also an important one in diffusing sanitary knowledge among a large class who do not attend the other meetings of the Congress.

THE STUDY OF TROPICAL DISEASES IN GERMANY.

THE new German School for the Study of Tropical Diseases is to be established at Hamburg. Professor Koch, to whose initiation the school is due, designed at first to locate the school in Berlin, but the great port of Hamburg has been wisely substituted so that a patient can be transferred directly from the ship to the hospital bed. Accommodation is being provided for 30 patients.

THE OPEN-AIR TREATMENT OF CONSUMPTION.

IT is, perhaps, not sufficiently well known to the profession that it is to the initiative of the late Dr. George Bodington of Sutton Coldfield, near Birmingham, that we owe the introduction of the open-air treatment of consumption. In 1840 he published a small book entitled, "The Treatment and Cure of Pulmonary Consumption." For some years he had been treating consumptive patients upon the open-air and overfeeding system and this book was the outcome of his researches and experience. He protested most earnestly against the then prevailing plan of carefully confining such patients from fear of the evil influence of cold fresh air and so "forcing them to breathe over and over again the same foul air contaminated with the diseased effluvia of their own persons." He opposed vigorously the prevalent lowering treatment by antimony, calomel, and bleeding, and urged the administration of plenty of good solid food combined with exercise in pure air. He advocated "frosty" air if possible and preferred the dry air of inland districts to that of the seaside. His great specific was cold, dry air which he considered had a most powerful influence in "healing and closing the cavities and ulcers of the lungs." It is certainly remarkable,[1] as we have already pointed out, "that a village doctor should have arrived in 1840 at these conclusions which anticipated some of our most recent teachings." As might have been expected such novel teaching met with the bitterest and most violent opposition and this openly expressed dissent and disapproval by the profession had the natural result of making patients averse to undergo the treatment, with the result that Dr. Bodington was not able to pursue his investigations. But he had sowed the good seed which henceforth began to spring up and propagate; he had lighted a lamp which has never since been put out. Only six years after this book appeared Dr. John Hughes Bennett, who must have been well aware of Dr. Bodington's work and the great controversy it raised, became a convert to his views. Writing in 1871 in "Reynolds's System of Medicine," Vol. III., page 578, he says: "It is now 25 years since I became convinced of the injury of shutting up patients in their rooms during winter and regulating the temperature as was formerly the custom." Some years after Dr. Hughes Bennett's conversion to open-air treatment, we find a far greater publicity being given to Dr. Bodington's views by a very favourable though tardy review of his book by Dr. Benjamin Ward Richardson in 1857 in the January number of the

[1] THE LANCET, March 11th, 1882, p. 417.

Journal of Public Health. Within two years of this we find Dr. Brehmer at Görbersdorf opening the first sanatorium on Bodington's principles and working out his system into a carefully thought out organisation. From this point the success of the treatment has been continuous, and we are preparing to welcome back into England a system which we ought to have accepted and developed nearly 60 years ago. Probably others before Dr. Bodington have at various times advocated the rational treatment of consumption, but he is the first whose advocacy though bitterly opposed was successful in gradually, if slowly, changing the whole current of popular and medical opinion on the subject. One of his patients whose case he describes in his book, a young lady in the third stage of consumption, whom he treated in 1837, is still living at Cheltenham, a grateful witness of his skill.

IMPORTANT DECISION AS TO INFECTIOUS DISEASES.

AN important case known as that of "Warwick *v.* Graham" was decided on June 11th by Mr. Justice Day on appeal against the interpretation put upon Section 124 of the Public Health Act, 1875, by two justices for the county of Cumberland. The section deals with the power of compulsory removal of a sick person to a hospital for infectious diseases. It has often been held that, although the section allows of such removal by order of any justice when the person suffering from an infectious disease "is without proper lodging and accommodation," yet its meaning is that such accommodation has to do with the welfare of the patient and not with the protection of other persons. This view is taken because the clause further states that one of the conditions under which the removal may be effected is that the sick person is "lodged in a room occupied by more than one family." This has been held to imply that protection against infection is not contemplated in the section so long as members of only one family are in question. But others have contended that the use of the word "or" in the section shows that there were two different sets of circumstances, in either of which removal of the patient under a magistrate's order could be carried out; and, further, it has been urged that the general intention of the Act is not the welfare of the individual but that it has concern with the public health and hence with the protection of the public against infection. Magisterial decisions have varied according as one or other of these views have been pressed upon the justices, but hitherto no decision on appeal has been available for general guidance. In the case in question a boy in Workington was suffering from scarlet fever and it was not pretended that he had not such proper lodging and accommodation as was necessary for his own welfare; but the corporation insisted that, owing to the position of the room which the patient occupied with respect to other rooms in the house, including the kitchen, it was impossible to isolate him in the sense of preventing the spread of infection to others. The magistrates declined to regard Section 124 as applicable to such a case. They held that the proper lodging and accommodation which was necessary surmised no more than that the patient was provided with ordinary habitable, clean, and comfortable quarters such as are requisite for a sick person, and they refused to grant an order of removal to hospital. This decision was appealed against, and although we have not yet before us the revised judgment of Mr. Justice Day the brief account of it already published shows the case to be of sufficient importance to warrant our calling immediate attention to it. For the judgment on appeal is to the effect that Section 124 was clearly directed to the protection of persons from infection and not merely to the protection of the sick person himself. This judgment is in accordance with common sense; it is in accordance with the general necessities of the case as set out again and again by medical officers of health; but it is opposed to a number of opinions which have been given by legal members and officers of different sanitary authorities. This difference of opinion has now prevailed ever since the Act of 1875 was passed; it has in many cases hindered the proper administration of the law against the spread of infection, and therefore we are glad that a decision has at last been given which must be regarded as setting the matter at rest.

"CRUELTY TO WOMEN."

THE temperance and wisdom which characterised the proceedings of the first meeting of the League which has just been formed to secure seats for women in shops and of which the Duchess of Westminster is president afford a good omen for the realisation of the necessary reform which the new league has at heart. Since this meeting, which was held under the presidency of the Dean of Westminster in the Jerusalem Chamber on the 8th inst., the Seats for Shop Assistants (England and Ireland) Bill has passed through committee, has been reported without amendment to the House of Commons, and has been read a third time. There is reason to hope, therefore, that the realisation of the wishes of the kindly ladies who form the league is near at hand. That in some cases women should be compelled to stand in shops for from 12 to 14 hours daily with only two intervals of half-an-hour for dinner and 20 minutes for tea all the year round regardless of temperature is a standing disgrace to a country like England, and this is emphasised by the fact that in New Zealand a law already exists by which an employer is rendered liable to a penalty if he does not provide seats for his female assistants. It is unnecessary to point out to our readers either the harm that is done to the women or the lessened capacity for work which is the outcome of thoughtlessness by employers in this connexion. The present Bill before the House deals with England and Ireland only and it will be remembered that the Lords have recently thrown out a Bill on the same subject dealing with Scotland. It is to be hoped, however, that legislation will not eventually be restricted to any particular divisions of the United Kingdom. At the meeting above referred to it was unanimously resolved that efforts should be made to form an advisory committee composed of medical men and the proprietors of shops and that the wives of proprietors of some of the shops should be asked to join the league. With this suggestion we are in full accord and we heartily wish success to a movement which we have always strongly supported.

CHINESE PREVENTIVE MEDICINE!

WHETHER it be from the fact that the Chinese physicians consider that man is influenced by heat and humidity, the harmony of which constitutes life, or whether it be that they consider the human body as a harmonic instrument which is affected by the vibration of the muscles, tendons, nerves, and arteries, we know not, but the Sanitary Board of Hong-Kong has just had a curious application made to them for permission to hold a procession of a somewhat corybantic nature to frighten away the plague which is increasing in Hong-Kong, though we are glad to learn from a correspondent that it remains localised in No. 9 health district, a part of the town rarely visited by Europeans. As was pointed out by Dr. Atkinson, principal civil medical officer, it is certainly not advisable for large crowds to gather in a part of the town affected with the plague, but the application was granted on the understanding that the firing of crackers and the beating of gongs should cease at nine o'clock in the evening; moreover, no noise was to be made within a certain distance of the

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In the vaccination returns a very striking fact is the remarkably small part which public vaccination (in the sense of the Scottish Vaccination Act) plays in Scotland. The total number of persons operated on by the official vaccinators in the year ending June 30th, 1898, was only 2173 in the whole country. In the half year, January to June, 1898, there were eight counties—some of them, it is true, very small counties—without a single official vaccination. It is not to be understood, however, that all the rest of the vaccinations in Scotland are done by medical men in their capacity of private practitioners. In the large towns there are

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ANNUAL REPORT OF THE SCOTTISH LOCAL GOVERNMENT BOARD.

THE fourth annual report of the Local Government Board for Scotland has been issued. It is divided into six parts—Poor-law, Audit, Local Government, Public Health, Vaccination, and Departmental. Under the first heading a summary is given of Sheriff Campbell's report on the conduct of officials in an outbreak of typhoid fever in South Uist. It is in this outbreak that the then medical officer, Mr. Lamont (whose persecution with regard to another matter has recently been so well exposed in the House of Commons by Sir Charles Cameron), figures not only prominently but heroically. "He got no instructions, information, or guidance from the parish council or inspector as to the health or condition of the people or paupers. ..... He was on duty practically night and day, in frequent storms and rains, over moors and across dangerous fords all over the parish, from the island of Eriskay in the south to the island of Benbecula in the north—38 miles apart. Notwithstanding this he paid six visits to the deceased Mary McInnes during the 12 days she lived after his first visit. He ministered to her professionally and in many menial services without aid and on her death he also, practically unaided, prepared her body for interment under extraordinary and exceptional difficulties." Mr. Lamont well deserves the "high appreciation of his conduct" formally recorded by the Local Government Board for Scotland.

In the vaccination returns a very striking fact is the remarkably small part which public vaccination (in the sense of the Scottish Vaccination Act) plays in Scotland. The total number of persons operated on by the official vaccinators in the year ending June 30th, 1898, was only 2173 in the whole country. In the half year, January to June, 1898, there were eight counties—some of them, it is true, very small counties—without a single official vaccination. It is not to be understood, however, that all the rest of the vaccinations in Scotland are done by medical men in their capacity of private practitioners. In the large towns there are

public stations for gratuitous vaccination in connexion with hospitals and medical schools, &c., but these are not maintained under the Vaccination Act. It is a little inconvenient to have to go to other official reports for the statistics of these public stations and of vaccination default in Scotland. Could not all the facts be published in the one document? From a short report by Dr. William Husband, superintendent of the Central Vaccine Institution for Scotland, it appears that 2591 tubes of humanised lymph were distributed to 423 practitioners and that six applications for calf lymph were received and acceded to. As to calf lymph Dr. Husband adds: "It is satisfactory to know that the English Local Government Board have intimated their intention, when the necessary arrangements are completed, of furnishing us with a limited supply for distribution in Scotland."

In public health the Board has evidently had a busy year consequent on the coming into operation of the Public Health (Scotland) Act, 1897. It has issued circulars and model by-laws and cholera regulations, &c., and has given advice to local authorities on many legal points. On a much-disputed question as to whether under Section 57 of the Scottish Public Health Act the medical officer of health is bound when called on to certify as to the freedom from infection of children who have recovered from infectious disease the Board indicates incidentally the reasonable opinion that it is only where he is "acquainted with the facts of the case" that a certificate can be expected from him. On the question of the respective obligations of sanitary authorities and parish councils regarding pauper cases of infectious disease the Board says: "In our opinion the parish council is bound to treat cases of infectious disease occurring among paupers or proper objects of parochial relief. The Public Health Act does not relieve them of that obligation and their liability continues. But when a local authority, acting under the Public Health Act and for the protection of the public health, remove or isolate the patient all the expenses necessarily incurred for this purpose form a charge against the public health assessment and cannot be recovered from any other person or body." Under Section 65 of the recent Act by-laws may be framed for securing the cleanliness and sanitary condition of public conveyances *plying within the district* of the local authority, and for preventing overcrowding in such conveyances. Among the by-laws under this section submitted to the Board for confirmation were two applicable to railway carriages. The law officers of the Crown advised the Board that railway carriages were not included in "public conveyances" under the Act, "but the local authority after reconsideration submitted new by-laws which applied to public conveyances generally without distinction, thus leaving open the question of their applicability to railway carriages." By Section 39 of the new Act, sanitary authorities can compel owners of private streets within special scavenging districts to level and pave such streets, and the Board's report gives very useful guidance as to the administration of this most important section. With regard to hospitals the report says: "The fact that we are now armed with compulsory powers under Section 44 of the Act has enabled us to give an impetus to hospital provision. Wherever we found that a medical officer of health in his annual report had been urging hospital accommodation for his district we gave the matter special attention and where we thought it advisable seconded the efforts of the medical officers, reminding the local authority of our powers under the aforesaid section." On the subject of the employment of nurses for attending persons suffering from infectious diseases in their own homes the Board points out that only its general sanction is required, because to require consent in each case would often frustrate the object in view—the immediate and thorough isolation of the patient. It also indicates that the employment of such nurses is not to be regarded as a substitute for the provision of hospitals. In one or two sparsely populated Highland districts a one year's experiment is, however, being made of the employment of nurses and the medical officer of health is to report to the Board at the end of the year, so that if the result be satisfactory they may be prepared to consider further schemes on a larger basis, as they think that "within reasonable limits the larger the number of local authorities which combine for fever nursing the less will be the difficulty in meeting demands which may suddenly arise." With regard to an outbreak of typhus fever in Skye the local medical officer, Dr. Dewar, "reports that even at midday there was so little light that he was obliged to find the patients by means of match light. The small fixed windows were grimy with dirt and smoke. For six weeks before his visit the whole family of six had been living solely on mashed potatoes and tea, partaken of three times a day. Comparing this outbreak with previous outbreaks he found the condition and surroundings practically identical. These were—overcrowding, want of ventilation, filth, and poverty." Only 28 cases of small-pox were notified in Scotland during 1898. The following table shows the prevalence and fatality of notified infectious disease in an aggregate population of 3,763,579, being that of 228 local authorities which had adopted the Notification Act in 1897:—

Diseases Specified in the Act.

—	Cases notified.	Deaths.	Percentage of deaths to notifications in 1897.
Small-pox	80	8	10·0
Cholera	1	—	—
Diphtheria	2,532	505	19·9
Membranous croup	185	76	41·1
Erysipelas	4,014	128	3·2
Scarlet fever	19,716	631	3·2
Typhus fever	159	28	17·6
Enteric fever	3,911	614	15·7
Relapsing fever	9	—	—
Continued fever	113	7	6·2
Puerperal fever	228	108	47·4
Total	30,948	2105	6·8

Diseases to which the Act has been Extended.

Measles	15,058	433	2·9
Whooping-cough	534	107	20·0
Choleraic diarrhœa	3	—	—
British cholera	—	—	—
Total	15,595	540	3·5
Grand total of both classes	46,543	2645	5·7

A table of the salaries of medical officers of health in Scotland contains some curious figures. 16 burghs appear to have no medical officers of health but these are no doubt only temporary vacancies. In four burghs the salary is £1 per annum, in two it is £1 1*s.*, in one it is 25*s.*, in another it is 30*s.*, and in 17 it is £2 or £2 2*s.* It may be assumed that these are very small burghs but they are surely not so very microscopic as to justify the payment of such ridiculous pittances to their health officers.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

NEARLY 300 gentlemen representing all grades of the medical profession assembled under the presidency of Sir JOHN LUBBOCK, Bart, M.P., at the Trocadéro Restaurant on Wednesday evening last, the occasion being the inaugural dinner of the Medical Graduates' College and Polyclinic.

The toast of "The Queen" and also that of "The Prince and Princess of Wales and other Members of the Royal Family" having been honoured Dr. W. MILLER ORD proposed "The Houses of Parliament." He regretted the unavoidable absence of Lord Lister who had written a letter to Mr. Hutchinson expressing his cordial approval of and hopes of prosperity for the College, and remarked on the number of men whom he saw before him representing the profession in varied interests and paths. He saw before him distinguished representatives of the medical services, the navy, and the army, and scientific men engaged in various kinds of medical research which advanced science in one way and helped the medical man in another, and together helped greatly the advancement of legislation for the

benefit of the public. What perhaps interested him most was the large number of general practitioners of all ages whom he saw present. He reminded members of the legislature that the work which was proposed to be done was of no ordinary kind and was not taken up for the benefit of any individual or number of individuals. The work had been taken up by reason of the fact that a large number of persons in the medical profession needed a certain amount of help owing to the great progress made by medicine in these days. Medical education—long-protracted as it now is—did not give a man the chance to acquire all he might wish to learn and within a few years the country practitioner felt himself to be behindhand. It would be the object of the College to enable such men to acquire in the easiest way new knowledge and technical skill.

The Hon. ALFRED LYTTLETON, M.P., in an amusing speech responded for the two Houses.

Sir JOHN LUBBOCK, in proposing "The Medical Graduates' College and Polyclinic," said that as a general rule when it was proposed to found a new institution the object was to give a stimulus to some languishing cause or because existing institutions had failed in their duties. Neither of these reasons applied in the present case. The existing colleges and hospitals were admirably and efficiently fulfilling the beneficent purposes for which they were constituted and it was their very success and the marvellous progress of medical science which had led to the formation of the Polyclinic College. As evidence of progress he mentioned the invention of complex and ingenious instruments such as the stethoscope, the ophthalmoscope, the laryngoscope, the cardiograph, the sphygmograph, the pneumograph, and others. Then there was the application to medicine of other physical appliances and discoveries, such as the clinical thermometer, the microtome, and the Roentgen rays; the discovery of many new and important drugs; the use of anæsthetics and the antiseptic treatment; the new modes of treatment, the operations which were formerly impossible, especially in brain and abdominal surgery. There was also the discovery of sciences, or at any rate of new branches of science, such as antenatal pathology and bacteriology. The mere mention of this list, he knew, very imperfectly showed the marvellous progress of medical science during the last half century. Though the course of study had been prolonged from four to five years no student however diligent or able could hope to master in the time so vast a range of subjects. But even if that were possible science was still advancing, new discoveries were being made, new methods and new inventions were being devised, and in a few years the student would find himself left behind. The aim of the Polyclinic College would be to facilitate the life-long education of medical men in all directions and to give them the opportunity of making themselves acquainted with all fresh discoveries. It would contain a collection of instruments and appliances and a first-rate library. Special lectures would also be given within its walls. All this could be effected in one central and special institution which would not come in conflict or competition with the various medical schools but which it was hoped would work in close association with them. The arrangements of modern life and the rapidity of communication had made schemes now possible which would formerly have been out of the question. Medical men resident in the country in all parts of England could easily make short visits to London and avail themselves of the opportunities which the College would afford. It was hoped also that some would come from abroad and from our colonies. It was also proposed to organise a certain number of daily consultations. These would be open to all medical men who had joined the College, and they were designed for the double purpose of giving advice to patients and at the same time of affording medical men opportunities of becoming practically familiar with exceptional forms of disease and with the best and most modern methods of diagnosis. It was not, however, proposed to provide hospital accommodation or to undertake continuous treatment. In this matter the Polyclinic would act in concert and consultation with the hospitals and with private practitioners. It would not compete with hospitals but to some extent supplement and assist their work. The institution had been practically founded by Mr. Hutchinson who was generously going to deposit in its museum his unique collection of clinical material and a splendid collection of books, and he was devoting to it much of his invaluable time. It certainly seemed to him (the speaker) that this institution had been admirably devised and would be most useful. His opinion, however, was worth little, but their opinion was worth much and they had shown it to be the same by their presence that evening. With the toast he coupled the names of Sir William Broadbent and Mr. Hutchinson.

Sir WILLIAM BROADBENT, in his reply, said Sir John Lubbock had rated his judgment on the work of the medical profession as not of any practical value; as a matter of fact, however, the medical profession appreciated his judgment and the countenance which he had given to their work very highly and they could have no better judge. The number of medical men present was a sufficient answer to the question, "Is this association likely to be of use?" and was a sufficient demonstration of the interest which it excited. Wherever he went he heard of the value which general practitioners attached to the association, and it was most interesting to notice the zeal of the general practitioner for medical knowledge and his desire to keep up in every respect with the advances of medical science.

Mr. HUTCHINSON, in the course of a long and interesting speech, spoke warmly as to the benefits which would accrue to the community from the Polyclinic. He said that Dr. Ord, the chairman, and Sir William Broadbent had described the advantages of the institution to medical men and he would like to point out that this institution much concerned the public. It was greatly in the interests of the public that the profession should be well educated and if a medical practitioner was willing to spare the time to keep himself abreast with the advance of knowledge the public ought to support him.

Sir JOSEPH FAYRER, Bart., in proposing "The Medical Schools," looked forward to the time when the students at the medical schools of London would be considered as much undergraduates as if they belonged to the ancient universities and would eventually become graduates of the University of London.

Dr. STEPHEN MACKENZIE replied and other toasts concluded an enjoyable evening. In the course of the proceedings subscriptions amounting to 4000 guineas were announced, including £1000 from Mr. Hutchinson.

ROYAL ARMY MEDICAL CORPS DINNER.

THE annual dinner of the Royal Army Medical Corps took place at the Whitehall Rooms, Hotel Métropole, on June 12th, Surgeon-General J. JAMESON, C.B., the Director-General, being in the chair. There was a large attendance of officers and the evening proved a very pleasant and successful one. After the toast of "The Queen" the CHAIRMAN, in an able and interesting speech, proposed "The Royal Army Medical Corps," this being the first occasion on which the officers of the medical service had met since their formation into a corps. The toast was, of course, received with enthusiasm.—Surgeon-General O'DWYER gave "The Health of the Chairman" and alluded to the great services which the Director-General had rendered in connexion with the reforms which had enabled them to become a Royal corps with army rank.—Surgeon-General JAMESON briefly acknowledged the compliment.—Lieutenant-Colonel Hector, who again acted as honorary secretary of the dinner, is to be congratulated on the result of his labours.

The following is a list of names of officers present: *Surgeon-Generals* J. Jameson, C.B. (Director-General), A. F. Bradshaw, C.B., C. McD. Cuffe, C.B., A. A. Gore, C.B., R. Harvey, C.B., D.S.O., H. S. Muir, W. Nash, T. F. O'Dwyer, A. F. Preston, J. B. C. Reade, C.B., P. B. Smith, and W. D. Wilson. *Colonels* W. F. Burnett, J. A. Clery, O. Codrington, H. Comerford, W. G. Don, A. W. Duke, T. J. Gallwey, C.B., C. A. Innes, T. Ligertwood, W. H. Macnamara, C.B., W. T. Martin, J. Maturin, J. L. Notter, T. O'Farrell, and W. F. Stevenson. *Lieutenant-Colonels* W. H. Allen, W. B. Allin, J. F. Beattie, G. D. Bourke, U. J. Bourke, A. L. Browne, W. L. Chester, A. F. S. Clarke, W. Donovan, J. D. Edge, R. Exham, J. A. Gormley, W. L. Gubbins, J. Hector, R. D. Hodgson, J. P. Hunt, W. Johnston, W. Keir, W. W. Kenny, H. C. Kirkpatrick, B. W. S. Large, H. Mackinnon, D.S.O., W. A. May, W. Rainsford, W. F.

Ruttledge, M. R. Ryan, P. B. Tuthill, O. G. Wood, and T. W. Wright. *Majors* W. Babtie, C.M.G., M. W. Baker, W. G. A. Bedford, M. O'D. Braddell, C. H. Burtchaell, A. M. Davies, J. D. Day, A. Dodd, S. F. Freyer, H. Grier, F. A. Harris, E. M. Hassard, H. Hathaway, J. Hickman, S. Hickson, G. Hilliard, C.M.G., H. E. R. James, R. Jennings, O. R. A. Julian, R. E. Kelly, A. Keogh, S. F. Lougheed, H. J. McLaughlin, W. J. Macnamara, W. G. Macpherson, H. J. Moberly, J. D. Moir, A. H. Morgan, F. J. Morgan, E. North, D. M. O'Callaghan, T. J. O'Donnell, E. V. A. Phipps, W. Pope, M. W. Russell, A. A. Sutton, G. T. H. Thomas, F. H. Treherne, G. T. Trewman, S. Westcott, and E. M. Wilson, C.M.G., D.S.O. *Captains* K. B. Barnett, T. B. Beach, H. J. M. Buist, H. E. Dowse, H. G. Faichnie, M. L. Hughes, J. C. Jameson, S. G. Moores, E. M. Pilcher, C. W. Profeit, P. H. Whiston, L. Way, and E. McK. Williams. *Guests:* Mr. Vesey Holt, Mr. Thomas Wakley, jun., and Dr. Dawson Williams. The Director-General of the Medical Department of the Royal Navy and the President of the Indian Medical Board were also invited but were unable to be present.

INDIAN MEDICAL SERVICE DINNER.

THE annual dinner of the officers of the Indian Medical Service was held at the Hotel Cecil on June 8th, Surgeon-General Sir W. GUYER HUNTER, K.C.M.G., being in the chair. The occasion is always a pleasant one and this year its reputation was fully maintained. At the conclusion of an excellent dinner and after the usual loyal toasts had been honoured "The Navy and Army" was proposed by Dr. W. S. PLAYFAIR and responded to by Sir HENRY F. NORBURY, K.C.B., Director-General of the Royal Navy Medical Service, and Surgeon-General J. JAMESON, C.B., Director-General of the Army Medical Service. The health of "The Guests" was given by Surgeon-General Sir JOSEPH FAYRER, Bart., K.C.S.I., and acknowledged by Mr. BRYANT, President of the Royal Medical and Chirurgical Society. "The Indian Medical Service" was proposed by Mr. EDMUND OWEN, late President of the Medical Society of London, and responded to by the CHAIRMAN and Surgeon-General HARVEY, C.B., D.S.O., Director-General of the Indian Medical Service. The CHAIRMAN expressed the thanks of the meeting to Surgeon-Lieutenant-Colonel P. J. Freyer for his successful efforts as honorary secretary of the dinner, and that gentleman suitably responded. The various speeches were interesting and to the point.

The following is a list of the names of the officers who were present:—*Surgeon-Generals* Sir W. Guyer Hunter, K.C.M.G. (chairman); Sir Joseph Fayrer, Bart., K.C.S.I., F.R.S.; R. Harvey, C.B., D.S.O. (Director-General I.M.S.); A. C. C. De Renzy, C.B.; W. R. Rice, C.S.I; and P. W. Sutherland. Dr. W. S. Playfair and Dr. H. W. G. Macleod (retired officers I.M.S.). *Colonels* A. M. Branfoot, W. E. Cates, H. Cayley, C. P. Costello, D. A. Hughes, J. C. Penny, A. Porter, W. H. Roberts, B. Williamson, and W. A. S. Wynne. *Lieutenant-Colonels* H. Armstrong, Oswald Baker, W. Cadge, J. W. Clarkson, A. Crombie, A. Dane, E. J. Drake-Brockman, Theodore Duka, G. A. Emerson, P. J. Freyer, J. C. Fullerton, G. Grant, D. F. Keegan, J. B. Lyon, C.I.E., J. Maitland, G. Massy, H. K. McKay, J. Parker, J. Reid, G. D. Riddell, J. B. Scriven, J. G. Skardon, G. S. Sutherland, W. H. Thornhill, and A. H. Williamson. *Majors* W. S. Caldwell, F. Carter, G. N. P. Dennys, A. S. Faulkner, C. Gilbert, S. Hassan, P. Hehir, H. Herbert, R. S. Lyons, P. D. Pank, F. Peck, F. G. Reeves, J. Scott, H. W. Stevenson, J. F. Tuohy, and D. P. Warliker. *Captains* J. T. Calvert, K. H. Caster, H. E. Drake-Brockman, G. Ramsey, R. F. Standage, R. G. Turner, and C. J. R. Whitcombe. *Lieutenant* J. N. Smith.

VACCINATION FEES.—At the meeting of the Tetbury Board of Guardians held on June 7th it was decided to allow the following vaccination fees: Mr. W. Wickham, for Burston, Cherington, Shipton Moyne, and Long Newnton, 7*s.* 6*d.* each case; for Tetbury and Tetbury Upton, 5*s.*; and Dr. G. W. Ashdown, for Boxwell, Leighburton, Didmarton, Kingscote, Newington, Bagpath, and Lasborough, 10*s.* each case; and for Ozleworth, 12*s.* 6*d.*

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following is a record of some of the principal amounts received at the Mansion House, according to the lists which have reached THE LANCET Office up to the time of going to press on Thursday, when the total sum amounted to over £22,000. At the corresponding period last year the total was £14,000.

	£	s.	d.
St. Paul's Cathedral	249	12	0
St. Michael, Chester-square	1333	0	0
"W. D. G. M."	100	0	0
Fredk. Druce	25	0	0
Herman Hoskier	50	0	0
Alex. Miller	25	0	0
Miss Emily Old	25	0	0
"F. F."	30	0	0
Vintners' Company	21	0	0
St. Mary Boltons	65	0	0
In Memoriam (Crosby Lockwood)	20	0	0
Finchley Parish Church	39	1	5
St. Mary Hospital Chapel, Ilford	25	12	8
St. James, Camberwell	28	2	0
St. Philip's, Regent-street	27	16	4
St. Mary, Cuddington	37	10	9
Trinity Presbyterian Church, Hampstead	32	10	0
Church of the Immaculate Conception, Farm-street	46	1	10
St. Luke, West Norwood	28	16	0
St. Mary Parish Church, Putney	42	0	0
St. Mary Old Church, Stoke Newington	45	5	2
St. Mary Brookfield, Dartmouth-park	20	0	5
Sir Charles Cust, Bart.	20	0	0
St. Stephen, Westminster	23	16	10
All Saints, Friern Barnet	42	14	11
Upton Baptist Chapel, Lambeth	21	17	0
Clapton-park Baptist Chapel	34	9	7
St. Giles, Camberwell	22	0	6
St. Paul, Upper Holloway	26	0	11
St. Peter, Clapham	23	9	11
Brixton Independent Church	53	12	9
St. John Evangelist, Westminster	45	10	0
Union Chapel, Islington	150	0	0
St. George's Chapel, Albemarle-street	84	6	3
St. Matthew, Denmark-hill	161	13	3
Aldenham Parish Church	100	18	0
Old Malden Parish Church	71	1	10
Merton Parish Church and Mission Hall	31	5	10
J. J. Randolph	20	0	0
St. George, Beckenham	60	12	11
St. Mary, Shortlands	35	11	6
St. Mary Magdalene, Wandsworth Common	24	7	11
St. John's Presbyterian Church, Kensington	82	0	0
St. Saviour, Ealing	20	10	4
All Saints, Norfolk-square	30	0	0
Dulwich College Chapel	51	10	0
C. H. T. Hawkins	21	0	0
St. James, Clapton	26	8	7
St Augustine, Highbury New Park	56	2	10
St. Augustine, Queen's-gate	87	5	0
East London Christian Evidence Society	81	10	0
Holy Trinity, Upper Tooting	42	18	6
Trinity Presbyterian Church, Notting-hill	46	12	0
Christian Evidence Society's East London Branch	34	11	6
St. George's Presbyterian Church, Brondesbury	27	10	0
Bromley Midcross Parish Church and Mission	23	0	0
Grosvenor Chapel, South Audley-street	32	0	11
St. James, Garlickhithe	26	13	4
St. Mary, Enfield	27	15	7
Finsbury Park Wesleyan Church	22	2	10
Mitcham Parish Church	28	2	7
St. Mary, West Kensington	26	1	6
Ewell Park Church and All Saints	28	4	3
Box outside Mansion House	20	14	4
Chislehurst Parish Church	337	11	7
Westminster Abbey	206	13	1
"J. B. S."	100	0	0
Major Jones	50	0	0
St. Luke, Chelsea, Parish Church	59	3	11
Bromley (Kent) Parish Church	64	1	8
St. Mark's, Bromley, Kent	33	15	5
St. James the Less, Westminster	32	14	7
St. Mary the Virgin, Hayes	30	15	3
Chiswick Parish Church	35	6	5
St. Simon, Upper Chelsea	45	7	6
Highgate Presbyterian Church	37	3	7
Holy Trinity, Lee	32	0	0
Orpington Parish Church and St. Paul's	37	11	4
Regent's Park Baptist Chapel	41	7	2
Christ Church, Newgate-street	38	17	4
St. Paul, Winchmore Hill	20	7	5
Archway-road Wesleyan Chapel	25	11	6
St. Anne, Wandsworth	33	0	0
St. Saviour, Paddington	55	8	2
Brixton Wesleyan Circuit	55	19	0
St. Mark, Reigate	73	19	0
Christ Church, Hornsey	52	1	4
Church of the Annunciation, Chislehurst	83	4	5
St. Andrew, Leytonstone	63	2	9
Leytonstone Congregational Church	24	5	2
St. Thomas and Mission, Stamford-hill	21	4	6
St. Saviour, Denmark-park	25	3	5

	£	s.	d.
Hatfield Parish Church and Chapel	21	10	3
St. Peter, Highgate-hill	23	0	0
St. John Baptist, Chislehurst	22	19	3
Upper Holloway Baptist Chapel	26	13	3
Dulwich College, with additions	52	0	0
Lewisham High-road Congregational Church...	20	0	0
Ilford Parish Church and Chapels	38	3	6
Chipping Barnet Parish Church	35	14	10
Crouch-hill Presbyterian Church	46	1	0

The records of other amounts have been received and will be published in our next issue.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool Urban District.—Dr. E. W. Hope's annual report just published is a comprehensive volume of more than 200 pages. It is illustrated by maps, diagrams, and photographs and contains the results of analyses and inspections. The report comprises a preface summarising the main features of the volume and is of great value in referring readers for detailed information on specific points. The estimated population of Liverpool is 668,645, and the total number of deaths at all ages and from all causes during the year 1898 was 15,380, which represents an annual rate of mortality equal to 23 per 1000 of the inhabitants. The total deaths, however, were not all deaths of residents in the city. Liverpool is a large medical centre and is well provided with hospitals, dispensaries, and other medical charities which attract patients from a very wide surrounding area and the death of every stranger to the city which occurs in any one of these institutions is included amongst the deaths of citizens and increases the apparent rate of mortality in the city. When these have been verified and deducted the annual rate of mortality is reduced to 22·2 per 1000. This death-rate is the lowest, with one single exception (1896), which has ever been recorded in the city of Liverpool and represents a reduction of 1 per 1000 below the average of the four years since the extension of the city boundaries. The reduction in the rate of mortality shows itself in each of the 11 districts of the city, with the exception of Walton, which was exceedingly low in 1897 and stood at precisely the same figure in 1898. It will be seen that while there was a reduction in the death-rate it is only from certain causes that the number of deaths had undergone any conspicuous diminution, these causes being due to the efforts of the sanitary authority. Foremost amongst these is the group of zymotic diseases, in which the steady decline of previous years has been more than maintained. The most marked decline was in those forms of zymotic disease which it has been possible to treat and to isolate in hospitals. Scarlet fever may be instanced as showing how readily, and to what an increasing extent, the public have availed themselves of this accommodation. Amongst the forms of zymotic disease for which no hospital accommodation is provided and which are usually regarded as the less serious forms (such as measles, whooping-cough, and diarrhœa) the diminution is relatively inconsiderable. The remarkable diminution in deaths from various forms of tuberculous disease is not less conspicuous than the foregoing. One of the most remarkable as well as gratifying features in regard to this disease is the great diminution in the rate of mortality in the very early years of life from the forms of tuberculous disease peculiar to those ages. This diminution does not appear to have been shared in throughout the country generally. Small-pox and typhus fever have become comparatively rare. In the section of the report dealing with sanitary administration it will be seen that various additions have been made to the medical officer of health's staff. The rule which requires candidates to possess a certificate or equivalent evidence that their previous occupation has fitted them for the duties which they will be called upon to discharge had been strictly adhered to and with much benefit. It is not only important that candidates should possess certificates: it is equally important that they should be properly taught and it is this consideration which had led the Liverpool City Council to give its support to the school of hygiene in University College where full and complete preliminary training can be obtained by those who desire to become inspectors in any branch of the medical officer's staff. With regard to matters affecting house sanitation the number of applications for assistance made by the public increases every year; they relate in the main to jerry-built property or old and worn-out insanitary property. Systematic house-to-house visitation was carried out by the district staff, both male and female, and special attention was given to the miserable class of property known as courts and alleys. Interchange of information between the medical department and the other departments had considerably increased, except in the case of the references to the School Board, which, owing to the diminution in infectious cases, fell from 15,000 to 11,000. With regard to the female sanitary staff it is worth noting that there was a very large increase in the number of families visited and a considerable diminution in the proportion reported as dirty. Ignorance of the language interposed a serious barrier to the efforts to improve the condition of the foreign Jews, chiefly Polish and Russian. Important and responsible duties were carried out by the ambulance and disinfecting staff; no less than 2387 patients were removed to hospital, and the consequent disinfection of houses, bedding, clothing, &c., had been attended with very satisfactory results. The cleansing of infected premises under a £30 rental was also undertaken by men connected with that branch of the staff. Under the Food and Drugs Act a great variety of samples had been taken for chemical and bacteriological analysis. The various brands of what is known as condensed milk had been completely examined and a considerable variety had been found in their composition. As in preceding years, considerable attention had been paid to the sources of the milk-supply. In comparing the number of samples of town milk with the number of samples of country milk found to be contaminated with tubercle it must be remembered that the town samples were chiefly taken from suspected sources, whereas the country samples were taken as they came without selection. The surveillance that is now maintained over shippons within the city had produced excellent results. Dr. Hope reports that 11,000 gallons of milk were brought into Liverpool every day from the country and about 12,000 gallons more were provided within the town shippons. Analysis showed that the town milk was purer and the town cows more healthy than was the case in the country, facts due to the better sanitary conditions which had been brought about by the inspection of shippons within the city. The demolition of insanitary property had proceeded gradually; the number of courts and alleys is at present 1466, as against 1660 in 1895. There is a very large amount of property which is so constructed as to be destructive to the health and the life of those living in it—pent-up, airless, and sunless, ruinously dilapidated, and saturated with filth. It is not surprising to find the general rate of mortality in it, from year's end to year's end, rising to 60 per 1000. The deaths were chiefly amongst the infants, but the general condition of the inhabitants was in every way deplorable. Considerable benefit had attended the improvements in the system of cleansing and scavenging; the increased use of water for street washing had resulted in conspicuous good, and the inverse ratio between the autumnal diarrhœa and the rainfall or water used in street washing is very remarkable. Fair progress had been made during the year towards the provision of adequate hospital accommodation for persons suffering from infectious diseases. The present number of beds available for the various forms of infectious sickness is as follows: City Hospital North, 147 beds; City Hospital South, 88 beds; City Hospital East, 42 beds; Parkhill Hospital, 166 beds; and Priory-road Hospital, 37 beds; making a total of 480 beds. They are apportioned as follows: small-pox, 37 beds; typhus fever, 20 beds; typhoid fever, 75 beds; scarlet fever, 288 beds; and diphtheria, 30 beds. There are also 30 beds for isolation purposes. 100 of these beds are located in buildings of a temporary character which are practically worn out and at no distant date will require to be taken down. At the lowest computation, based upon a wide experience and embodied in the recommendations of the Local Government Board, Liverpool requires a minimum of 650 beds for ordinary infectious sickness and 100 beds for small-pox. Towards the close of last year the medical officer reported to the Hospitals committee the great difficulty

experienced from the inability to find accommodation for the patients seeking admission to the hospitals. Many of those for whom accommodation was sought were without proper lodging and accommodation in their own homes; indeed, some of these homes had actually been condemned as unfit for human habitation. About 12,000 people are at present housed in cellars. The requirements of the Liverpool Improvement Act of 1871 and of the Public Health Act of 1875 are very stringent in relation to cellar dwellings and any person who lets or suffers to be occupied any cellar in contravention of these requirements is liable to a penalty not exceeding £10. Proceedings for the abatement of nuisances caused by the excessive emission of smoke from factory chimneys or from steamers were taken under the Liverpool Sanitary Amendment Act, 1854, Sections 24 and 25, and the Liverpool Improvement Act, 1882, Section 77, with the following results: in the case of manufactories 527 reports, in the case of steamers in the river 305 reports, and in the case of steamers in dock 71 reports, making a total of 903, as against 943 in 1897. The total fines enacted for these offences amounted to £1182 11*s.* 1*d.*, as against £1138 15*s.* 3*d.* in 1897. The large and increasing amount paid in fines for smoke nuisances caused by defective house flues and from low chimneys indicates the necessity for care in preventing them. The birth-rate in the city of Liverpool was exceptionally high. During the last 10 years the mean has been 34·4 per 1000, which is considerably in excess of most of the 35 great towns. During the 52 weeks of the year 1898 the returns of the local registrars recorded 22,227 births within the city, making the total birth-rate of the city equal to 33·2 per 1000 of the population. Of the total births 11,337 were males and 10,890 were females.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6627 births and 3591 deaths were registered during the week ending June 10th. The annual rate of mortality in these towns which had been 16·0 and 17·7 per 1000 in the two preceding weeks declined again last week to 16·4. In London the rate was 15·7 per 1000, while it averaged 16·9 in the 32 provincial towns. The lowest rates in these towns were 10·8 in West Ham, 11·0 in Norwich, 11·4 in Croydon, and 13·2 in Gateshead; the highest rates were 20·8 in Oldham and in Sunderland, 20·9 in Liverpool, 21·0 in Salford, and 22·9 in Manchester. The 3591 deaths included 397 which were referred to the principal zymotic diseases, against 358 and 386 in the two preceding weeks; of these 162 resulted from measles, 79 from whooping-cough, 62 from diphtheria, 42 from diarrhœa, 27 from "fever" (principally enteric), 23 from scarlet fever, and two from small-pox. No death from any of these diseases was recorded last week in Norwich; in the other towns they caused the lowest death-rates in Croydon, Derby, Halifax, and Gateshead, and the highest rates in Swansea, Bolton, Manchester, and Salford. The greatest mortality from measles occurred in London, Nottingham, Bolton, Liverpool, Manchester, and Salford; and from whooping-cough in Plymouth, Leicester, Oldham, Huddersfield, and Hull. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 62 deaths from diphtheria included 28 in London, seven in Swansea, seven in Sheffield, six in Leicester, six in Hull, and three in West Ham. One fatal case of small-pox was registered in London and one in Hull, but not one in any other of the 33 large towns; and only one small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, June 10th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of last week was 2269, against numbers increasing from 2161 to 2212 at the end of the three preceding weeks; 278 new cases were admitted during the week, against 211, 229, and 260 in the three preceding weeks. Influenza was certified as the primary cause of 18 deaths in London. The deaths referred to diseases of the respiratory organs in London which had been 256 and 240 in the two preceding weeks further declined to 216 last week and were 31 below the corrected average. The causes of 43, or 1·2 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Manchester, Leeds, Newcastle-upon-Tyne, and in 13 other smaller towns. The largest proportions of uncertified deaths were registered in Birmingham, Leicester, Liverpool, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns which had been 16·9 and 19·9 per 1000 in the two preceding weeks declined again to 18·9 during the week ending June 10th, but was 2·5 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 17·6 in Paisley to 21·3 in Dundee and 23·7 in Perth. The 576 deaths in these towns included 25 which were referred to measles 16 to whooping-cough, 12 to diarrhœa, six to "fever," five to scarlet fever, and two to diphtheria. In all, 66 deaths resulted from these principal zymotic diseases, against 52 and 68 in the two preceding weeks. These 66 deaths were equal to an annual rate of 2·2 per 1000, which was slightly above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles which had been 11 and 16 in the two preceding weeks further rose to 25 last week, of which 24 occurred in Glasgow. The 16 deaths from whooping-cough corresponded with the number recorded in the preceding week, and included five in Leith, four in Edinburgh, four in Glasgow, and three in Dundee. The deaths referred to different forms of "fever" which had been one and three in the two preceding weeks further rose to 6 last week, of which four occurred in Glasgow and two in Dundee. The five fatal cases of scarlet fever showed a decline of six from the number registered in the preceding week and included four in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 80 and 108 in the two preceding weeks declined again to 93 last week and were 16 below the number in the corresponding period of last year. The causes of 26, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin which had declined in the three preceding weeks from 26·8 to 22·1 per 1000 rose again to 25·2 during the week ending June 10th. During the past four weeks the rate of mortality in the city has averaged 25·2 per 1000, the rate during the same period being 16·2 in London and 18·2 in Edinburgh. The 169 deaths registered in Dublin during the week under notice showed an increase of 21 upon the number in the preceding week, and included 11 which were referred to the principal zymotic diseases, against seven and five in the two preceding weeks; of these four resulted from "fever," three from whooping-cough, two from scarlet fever, one from diphtheria, one from diarrhœa, and not one either from small-pox or measles. These 11 deaths were equal to an annual rate of 1·6 per 1000, the zymotic death-rate during the same period being 2·0 in London and 1·0 in Edinburgh. The four deaths referred to different forms of "fever" exceeded the number recorded in any recent week. The fatal cases of whooping-cough which had been one and two in the two preceding weeks further rose to three last week. The mortality from scarlet fever also exceeded that recorded in any recent week. The 169 deaths in Dublin last week included 25 of infants under one year of age and 47 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons exceeded the numbers returned in the preceding week. Six inquest cases and five deaths from violence were registered; and 67, or more than a third, of the deaths occurred in public institutions. The causes of 14, or more than 8 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING MAY, 1899.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during May in each of the 43 sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 7·3 per 1000 of the population, estimated at 4,546,752 persons in the middle of this year. In the three preceding

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING MAY, 1899.

(Specially compiled for THE LANCET.)

Sanitary Areas.	Estimated population in the middle of 1899.	Notified Cases of Infectious Disease.											Deaths from Principal Infectious Diseases.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of Infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	**4,545,752**	**3**	**1481**	**1099**	**1**	**137**	**5**	**31**	**429**	**—**	**3186**	**7·3**	**—**	**262**	**30**	**129**	**191**	**—**	**30**	**—**	**55**	**698**	**1·6**	**6873**	**15·8**	**110**
West Districts.																										
Paddington	128,794	—	18	21	—	1	—	3	12	—	55	4·5	—	1	—	3	6	—	—	—	1	11	0·9	174	14·1	108
Kensington	174,699	—	32	10	1	4	1	3	14	—	65	3·9	—	2	1	1	7	—	1	—	2	14	0·8	231	13·9	115
Hammersmith	108,785	—	33	8	—	2	—	—	6	—	49	4·7	—	8	1	2	4	—	—	—	—	15	1·4	168	16·1	100
Fulham	130,720	1	70	44	—	5	—	—	4	—	124	9·9	—	8	2	4	6	—	—	—	1	21	1·7	192	15·3	137
Chelsea	96,721	—	17	21	—	1	—	—	9	—	48	5·2	—	—	—	4	3	—	—	—	—	7	0·8	156	16·8	79
St. George Hanover-square	80,876	—	7	8	—	4	—	—	7	—	26	3·4	—	1	1	—	—	—	2	—	—	4	0·5	96	12·4	119
Westminster	52,117	—	17	4	—	1	—	—	6	—	28	5·6	—	1	—	—	—	—	1	—	—	2	0·4	102	20·4	161
St. James Westminster	21,827	—	8	—	—	—	—	—	2	—	10	4·8	—	—	—	—	—	—	—	—	—	—	—	30	14·3	83
North Districts.																										
Marylebone	140,139	1	30	16	—	5	—	1	18	—	71	5·3	—	—	—	1	4	—	1	—	2	8	0·6	194	14·4	73
Hampstead	80,252	—	20	11	—	—	—	1	9	—	41	5·3	—	7	1	1	2	—	—	—	—	11	1·4	79	10·3	88
St. Pancras	244,548	—	103	38	—	9	—	—	24	—	174	7·4	—	10	3	14	11	—	1	—	4	43	1·8	398	17·0	119
Islington	348,085	—	133	61	—	13	—	5	21	—	233	7·0	—	25	1	6	17	—	3	—	7	59	1·8	472	14·1	91
Stoke Newington	35,187	—	18	6	—	—	—	2	7	—	33	9·8	—	1	1	1	1	—	—	—	—	4	1·2	37	11·0	89
Hackney	222,571	—	75	60	—	5	—	—	30	—	170	8·0	—	26	3	7	4	—	—	—	3	45	2·0	316	14·8	97
Central Districts.																										
St. Giles	37,196	—	6	5	—	2	—	—	6	—	19	5·3	—	—	—	1	—	—	—	—	—	1	0·3	73	20·5	119
St. Martin-in-the-Fields	12,142	—	3	2	—	—	—	—	—	—	5	4·3	—	—	—	1	—	—	—	—	—	1	0·9	22	18·9	264
Strand	23,016	—	14	4	—	—	—	—	—	—	18	8·2	—	—	1	1	—	—	—	—	1	3	1·4	45	20·4	107
Holborn	29,621	—	5	2	—	1	—	—	2	—	10	3·5	—	2	—	—	2	—	1	—	2	7	2·5	75	26·4	264
Clerkenwell	66,068	—	30	21	—	4	—	—	5	—	60	9·5	—	3	—	3	2	—	3	—	2	13	2·1	109	17·2	124
St. Luke	40,868	—	14	10	—	4	—	—	4	—	32	8·2	—	3	1	—	4	—	—	—	—	8	2·0	124	31·6	116
City of London	27,986	—	5	6	—	—	—	—	4	—	15	5·6	—	1	1	1	2	—	—	—	—	5	1·9	61	22·7	170
East Districts.																										
Shoreditch	121,071	—	22	35	—	12	2	—	17	—	88	7·6	—	14	2	2	3	—	—	—	3	24	2·1	220	18·9	124
Bethnal Green	128,938	—	32	24	—	7	—	1	25	—	89	7·2	—	13	—	2	6	—	2	—	9	32	2·6	215	17·4	94
Whitechapel	81,391	—	14	15	—	—	—	1	5	—	35	4·5	—	6	—	1	2	—	—	—	2	11	1·4	131	16·8	112
St. George-in-the-East	48,560	—	5	13	—	5	—	1	3	—	27	5·8	—	9	—	—	2	—	—	—	1	12	2·6	103	22·1	128
Limehouse	58,807	—	9	8	—	—	—	—	8	—	25	4·4	—	23	—	4	5	—	1	—	1	34	6·0	138	24·5	180
Mile End Old Town	113,161	—	26	20	—	1	—	1	11	—	59	5·4	—	2	—	2	9	—	—	—	2	15	1·4	181	16·7	103
Poplar	170,606	—	35	38	—	5	—	1	13	—	92	5·6	—	6	—	8	14	—	3	—	2	33	2·0	284	17·4	123
South Districts.																										
St. Saviour Southwark	24,207	—	18	10	—	—	—	—	2	—	30	12·9	—	—	—	—	2	—	—	—	1	3	1·3	41	17·7	94
St. George Southwark	60,536	—	15	59	—	—	—	1	4	—	79	13·6	—	3	—	3	9	—	—	—	1	16	2·8	127	21·9	180
Newington	124,166	—	57	77	—	3	—	—	13	—	150	12·6	—	3	1	10	11	—	—	—	3	28	2·4	222	18·6	139
St. Olave Southwark	11,098	—	6	2	—	—	—	—	—	—	8	7·5	—	—	—	—	—	—	—	—	—	—	—	17	16·0	30
Bermondsey	85,835	—	30	47	—	5	—	—	5	—	87	10·6	—	2	3	6	6	—	1	—	1	19	2·3	156	19·0	137
Rotherhithe	41,050	—	18	7	—	3	—	—	5	—	33	8·4	—	1	—	—	2	—	1	—	—	4	1·0	68	17·7	126
Lambeth	308,108	1	60	64	—	9	1	—	30	—	165	5·6	—	38	1	10	15	—	3	—	—	67	2·3	469	15·9	104
Battersea	174,996	—	77	69	—	4	—	1	19	—	170	10·1	—	4	1	6	5	—	1	—	—	17	1·0	200	11·9	104
Wandsworth	209,655	—	74	42	—	4	—	2	20	—	142	7·1	—	2	—	4	5	—	1	—	—	12	0·6	245	12·2	86
Camberwell	264,817	—	90	93	—	7	—	3	18	—	211	8·3	—	16	—	9	13	—	—	—	2	40	1·6	347	13·7	112
Greenwich	182,513	—	109	49	—	5	1	3	26	—	193	11·0	—	15	4	5	4	—	3	—	—	31	1·8	242	13·8	88
Lewisham (excluding Penge)	91,027	—	36	32	—	2	—	—	7	—	77	8·8	—	5	—	4	2	—	—	—	—	11	1·3	134	15·4	85
Woolwich	41,542	—	18	11	—	—	—	—	3	—	32	8·0	—	—	1	1	—	—	1	—	2	5	1·3	65	16·3	151
Lee	40,219	—	18	11	—	3	—	—	2	—	34	8·8	—	1	—	—	—	—	—	—	—	1	0·3	39	10·1	49
Plumstead	64,031	—	53	15	—	—	—	1	3	—	72	11·7	—	—	—	1	1	—	—	—	1	3	0·5	75	12·2	77
Port of London	—	—	1	—	—	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 27 cases of membranous croup.

† Including deaths from membranous croup.

months the rates had been 8·5, 6·7, and 6·2 per 1000 respectively. The rates were considerably below the average in Paddington, Kensington, St. George Hanover-square, St. Martin-in-the-Fields, Holborn, Whitechapel, and Limehouse; while they showed the largest excess in St. Saviour Southwark, St. George Southwark, Newington, Bermondsey, Battersea, Greenwich, and Plumstead sanitary areas. Three cases of small-pox were notified in London during May, including one in Fulham, one in Marylebone, and one in Lambeth sanitary areas; two small-pox patients were admitted into the Metropolitan Asylums Hospitals during May, and one remained under treatment at the end of last month. The prevalence of scarlet fever in London showed an increase upon that recorded in the preceding month; among the various sanitary areas this disease showed the highest proportional prevalence in Fulham, Stoke Newington, Strand, St. Saviour Southwark, Greenwich, and Plumstead. The Metropolitan Asylums Hospitals contained 2172 scarlet fever patients at the end of May, against 2535, 2272, and 2088 at the end of the three preceding months; the weekly admissions averaged 229, against 236, 196, and 177 in the three preceding months. The prevalence of diphtheria in London showed a marked increase upon that recorded in the preceding month; this disease was proportionally most prevalent in Fulham, St. Saviour Southwark, St. George Southwark, Newington, Bermondsey, Battersea, Camberwell, and Lewisham sanitary areas. There were 1129 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of May, against 1388, 1159, and 994 at the end of the three preceding months; the weekly admissions averaged 152, against 172, 127, and 107 in the three preceding months. The prevalence of enteric fever in London showed a further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in St. Luke, Shoreditch, St. George-in-the-East, Greenwich, and Lee sanitary areas. The Metropolitan Asylums Hospitals contained 99 enteric fever patients at the end of May, against 215, 148, and 124 at the end of the three preceding months; the weekly admissions averaged 16, against 19 and 17 in the two preceding months. Erysipelas was proportionally most prevalent in Hackney, St. Giles, London City, Shoreditch, Bethnal Green, and Limehouse sanitary areas. The 31 cases of puerperal fever notified in London during May included five in Islington, and three each in Paddington, Kensington, Camberwell, and Greenwich sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the five weeks ending June 3rd, the deaths of 6873 persons belonging to London were registered, equal to an annual rate of 15·8 per 1000, against 20·3, 22·2, and 18·0 per 1000 in the three preceding months. The lowest death-rates in the various sanitary areas were 10·1 in Lee, 10·3 in Hampstead, 11·0 in Stoke Newington, 11·9 in Battersea, 12·2 in Wandsworth and in Plumstead, and 12·4 in St. George Hanover Square; the highest rates were 20·5 in St. Giles, 21·9 in St. George Southwark, 22·1 in St. George-in-the-East, 22·7 in the City of London, 24·5 in Limehouse, 26·4 in Holborn, and 31·6 in St. Luke. During the five weeks of May 698 deaths were referred to the principal zymotic diseases in London; of these 262 resulted from measles, 30 from scarlet fever, 129 from diphtheria, 191 from whooping-cough, 30 from enteric fever, 56 from diarrhœa, and not one either from small-pox, typhus, or any ill-defined form of continued fever. These 698 deaths were equal to an annual rate of 1·6 per 1000, against 1·6, 1·9, and 1·6 in the three preceding months. No death from any of these zymotic diseases was recorded last month in St. James Westminster or in St. Olave Southwark; in the other sanitary areas they caused the lowest death-rates in St. George Hanover-square, Westminster, Marylebone, St. Giles, Wandsworth, Lee, and Plumstead; and the highest rates in Holborn, Bethnal Green, St. George-in-the-East, Limehouse, St. George Southwark, and Newington. The 262 fatal cases of measles were 128 below the corrected average number in the corresponding periods of the 10 preceding years; this disease showed the highest proportional fatality in Hampstead, Hackney, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, and Lambeth sanitary areas. The 30 deaths referred to scarlet fever were less than half the corrected average number; this disease was proportionately most fatal in Bermondsey and Greenwich sanitary areas. The 129 fatal cases of diphtheria were 50 below the corrected average number; this disease showed the highest proportional fatality in St. Pancras, Clerkenwell, Limehouse, Poplar, Newington, and Bermondsey sanitary areas. The 191 deaths from whooping-cough were 98 below the corrected average number; this disease was proportionally most fatal in St. Luke, Limehouse, Mile End Old Town, Poplar, St. George Southwark, and Newington sanitary areas. The 30 fatal cases of enteric fever were 10 below the corrected average number; the mortality from this disease showed no marked excess in any of the sanitary areas. The 56 deaths from diarrhœa were 12 below the corrected average number. In conclusion, it may be stated that the aggregate mortality in London during May from these principal zymotic diseases was more than 34 per cent. below the average.

Infant mortality in London during May, measured by the proportion of deaths of children under one year of age to registered births, was equal to 110 per 1000. Among the various sanitary areas the lowest rates of infant mortality were recorded in Chelsea, Marylebone, St. Olave Southwark, Lewisham, Lee, and Plumstead; and the highest rates in Westminster, St. Martin-in-the-Fields, Holborn, City of London, Limehouse, and St. George Southwark.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

INSPECTOR-GENERAL OF HOSPITALS AND FLEETS HENRY MACDONNELL, C.B., has been placed on the Retired List. Staff Surgeon Edward Hanbury Williams has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

ROYAL ARMY MEDICAL CORPS.

The under-mentioned officers retire on retired pay: Major John W. Beatty and Major William G. Clements.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments are announced:—The services of Captain A. F. W. King (Bombay), are placed temporarily at the disposal of the Government of Bombay for employment on plague duty. The services of the under-mentioned officers are placed temporarily at the disposal of the Government of Bengal for employment on plague duty: Major H. D. Rowan, R.A.M.C., Captain C. J. B. Statham, R.A.M.C., Captain R. W. H. Jackson, R.A.M.C., and Lieutenant W. E. P. V. Marriott, R.A.M.C. The services of Major H. E. Deane, R.A.M.C., are placed at the disposal of the Government of Bengal for employment on plague duty. The services of Captain A. R. S. Anderson (Bengal) are placed temporarily at the disposal of the Government of Bengal. The services of Captain W. G. Pridmore (Madras) are placed temporarily at the disposal of the Government of Burmah. The services of Captain T. A. Granger (Bengal) are placed temporarily at the disposal of the Chief Commissioner of Assam. The services of Captain P. F. Chapman (Bengal) are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces. The services of Captain W. W. Clemesha (Bengal) are placed temporarily at the disposal of the Government of Bengal for employment on plague duty. The services of the under-mentioned officers are placed temporarily at the disposal of the Government of the North-Western Provinces and Oudh: Captain T. W. A. Fullerton (Bengal) and Captain C. B. Prall (Bengal).

VOLUNTEER CORPS.

Artillery: 1st North Riding of Yorkshire (Western Division, Royal Artillery): Septimus Farmer to be Surgeon-Lieutenant. *Rifle:* 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers: Surgeon-Lieutenant W. Murdoch to be Surgeon-Captain. 2nd Volunteer Battalion the Gloucestershire Regiment: Surgeon-Captain P. T. Lunn resigns his commission. 1st Volunteer Battalion the Hampshire Regiment: Surgeon-Captain W. K. Loveless resigns his commission. 2nd Volunteer Battalion the Durham Light Infantry: Surgeon-Lieutenant T. Livingstone resigns his commission. 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry: John McKie to be Surgeon-Lieutenant. 1st (Ross Highland) Volunteer

Battalion, Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's): Surgeon-Captain J. Adam to be Surgeon-Major.

ENTERIC FEVER AT DAGSHAI.

It will be remembered that some time ago there was a severe outbreak of enteric fever at this Indian hill station and it was decided to evacuate it for a time until some improvements in regard to the water-supply and local sanitation had been effected. Dagshai was accordingly evacuated and the cantonments have been left empty during the last two seasons. Some cases of this fever have recently occurred among some drafts lately arrived at Dagshai from England. It is believed that the outbreak is not due, however, to any local causes but to the fact that the troops contracted the disease before their arrival at the station and brought the disease with them. An outbreak of the same disease is also reported from Chakrata among the troops newly arrived in the station. These appear to have left Meerut in good health and inquiry is accordingly being made into the condition of the camping stages along the route to discover, if possible, any causes which may account for the infection.

THE PHILIPPINE WAR.

Military operations appear to be going on in the Philippines more actively than ever. There has quite recently been some fierce fighting although on a relatively small scale. The American forces apparently scored a marked success at Bacoor. General Otis is vigorously pushing on the campaign. The climate, at this season especially, must be giving rise to a good deal of inefficiency from sickness among the American troops.

Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I., retired list, I.M.S., has been granted an Indian Good Service Pension.

Correspondence.

"Audi alteram partem."

THE CLAIMS OF CREMATION: A REPLY TO SIR FRANCIS SEYMOUR HADEN.

To the Editors of THE LANCET.

SIRS,—Sir Francis Seymour Haden, in his paper in THE LANCET,[1] commences with a statement that his communication is not intended to be controversial, but considering that it is throughout an attack on the practice of cremation and a defence of the earth-to-earth system of burial such a statement can hardly be considered accurate. The present letter is an attempt to answer the above-mentioned paper and to put forward adequately the claims cremation possesses over other means of disposing of our dead.

The case for cremation.—1. Everyone who has any knowledge of, or interest in, sanitation recognises that the present system of burial in practically imperishable coffins is a bad system. The cemeteries of this country are rapidly becoming crowded with coffins containing dead bodies, potential sources of decomposition and putrefaction. These bodies are often those dead from infectious diseases and contain the germs of these diseases. These germs frequently find their happiest breeding ground in the soils of cemeteries and from this soil they may be, and frequently are, conveyed by water or other means to infect the living. It would hardly be necessary to quote facts in support of this assertion were it not that Sir Francis Haden has stated that the recent Milroy Lectures of Dr. Poore affirm the principle that disease is not conveyed in the earth. Now, the following extracts, quoted *verbatim* from the first Milroy Lecture,[2] seem to me to prove the direct opposite of this: "Among the ubiquitous organisms which are habitually found in earth is the bacillus of tetanus. It is said to be present in almost all rich garden soils. ..... Marchesi has found it at a depth of two metres but no lower. ..... The statement made by Ledantec and H. M. Stanley that the natives of the New Hebrides and Central Africa are in the habit of poisoning their arrows by smearing them with mud (obtained in the New Hebrides from a mangrove swamp) gives emphasis to the importance of a tropical temperature and the absence of tillage as factors which make for increase of virulence of the tetanus bacillus and other oganisms found in earth." Surely this supports the contention that to bury a body dying from tetanus and containing the germs of tetanus in the earth is to infect the earth and render it a possible source of infection to others. Again, quoting from the same source, Ernest Hart said: "Within certain areas in India cholera is endemic, especially in the country of the lower Ganges. There the air, the water, and the soil are never cold, the ground is often damp, and when it is dry the tanks are foul, so that there is always a fit breeding-place for the contagion." When we plant a body filled with this contagion in a medium so fitted for its cultivation we run a risk—a very serious risk—of starting and spreading an outbreak of cholera. As a matter of fact, in the Board of Trade Reports a number of instances of epidemics of cholera directly traceable to the proximity of graveyards has been published. Dr. Friere of Rio de Janeiro has shown, too, that the organism of yellow fever multiplies in the soil of cemeteries in which countless numbers of germs are sown every time a body dead from yellow fever is buried and that it can be reproduced by water in which the soil of such places has been washed. These examples might be multiplied over and over again. Surely, then, it is not accurate to contend that the earth is not one of the methods by which infectious disease may be conveyed.

2. Recognising that some alteration is absolutely necessary in our present method of disposal of the dead the question to decide is what system is the best. The various means which have been either suggested or carried out may be classified as follows: (*a*) simple exposure to the air as practised by the Australian aborigines; (*b*) committal to water as burial at sea, or to a river, as by some of the natives of India in their sacred river the Ganges; (*c*) exposure to be eaten by vultures, as by the Parsees in the Towers of Silence at Bombay; (*d*) disposal by desiccation; (*e*) ordinary burial in sealed coffins; (*f*) burial in rapidly perishable coffins, or earth-to-earth burial; and (*g*) cremation. The first four of these systems possess such obvious disadvantages that no discussion on them is necessary. The objections to the fifth have already been considered, so that there remain only the earth-to-earth system (with which Sir Francis Seymour Haden's name is so intimately associated) and cremation. To my mind the fact that to bury a dead body in the earth, no matter whether in a perishable or an imperishable covering, is to pollute and contaminate that earth, to render that earth a potential source of infection of all kinds of diseases to living persons, by itself effectually disposes of the claims of this system as the one we should adopt. By cremation these dead bodies, these possible sources of putrefaction and disease, are rapidly and effectually transformed into harmless compounds instead of undergoing the revolting process of decomposition in the earth, and provided that the objections which have been urged against it can be overcome it is surely the ideal method of disposing of dead bodies.

3. The objections to cremation may be discussed under the following heads: the sentimental, the religious, the sanitary, and the medico-legal. The sentimental objection is, from a scientific standpoint, unimportant. Time and education in matters of sanitation will effectually dispose of that—it is not one which need detain us. The religious argument against cremation is very feeble. It has been contended that the immortality of the body is jeopardised by its destruction in the furnace. The ultimate result of disintegration of the body is identical, whatever the process by which it comes about—namely, a resolution into its elementary constituents; it is simply a question of the length of time taken by the earth or by fire to do it and it is ridiculous to contend that the time taken by the body to be resolved into its components can have any influence on its subsequent immortality. Do those who use this argument believe that those martyrs who were burnt at the stake have thereby lessened their chances of resurrection? There is no real sanitary reason against the adoption of cremation as a universal custom. Sir Francis Haden says that on a large scale such a consumption and carbonisation of pure air would take place that a large area in the neighbourhood of the furnaces would be rendered uninhabitable. The answer to this is simple: with properly constructed furnaces the process of combustion is quite complete; no foul gas is allowed to contaminate the atmosphere. The analogy to the dust destructors which exist in our large towns and boroughs—e.g., St. Pancras and Shoreditch—is

[1] THE LANCET, May 27th, 1899.
[2] THE LANCET, Feb. 25th, 1899.

obvious. These are furnaces for the destruction of dead organic matter and they are found in practice to do this effectually and completely and they do not render either large or small areas uninhabitable, unsanitary, or unpleasant even when situated in a thickly populated district. The medico-legal argument is the one which has been most prominently pushed forward by the advocates of the earth-to-earth system. They contend that homicidal crimes such as secret poisoning and stabbing would be rendered less easy of detection consequent on the early and complete destruction of the body and therefore the impossibility of subsequent exhumation and so an increase in such crime would take place. Sir Francis Haden[3] states that this is a part of the subject which no cremationist is willing if he can help it to hear mentioned. Now, so far from this being true, all cremationists recognise that this at first sight is a serious objection to their method and they have over and over again called attention to it publicly—for example, the speeches delivered by Dr. Cameron and Sir Lyon Playfair in the House of Commons on the Disposal of the Dead (Regulation) Bill on April 30th, 1884.[4] As regards poisoning, experiments instituted by M. Cadet and repeated by M. Dourvault and M. Worst have shown that arsenic and all mineral poisons (except mercury) can be detected just as well in the ashes of a burnt body as they can be in an exhumed body. The organic poisons are destroyed just as much by interment as they are by fire, only, of course, not so quickly. But the remedy for this possible evil would be (and this is needed whatever system we adopt) to appoint State officials, as is done in France and Germany, to inquire into and verify the death certificate. In the majority of cases no difficulty would arise and in any suspicious case the proper authorities could be notified and an investigation held. The detection of crimes of this character is quite rare unless the criminal is discovered at once; after burial it is exceedingly uncommon for suspicion to arise. The average number of exhumations, for instance, in this country is only five per annum, and of these less than one is for suspected poisoning. As a matter of fact, crime would be *more* likely to be detected, not *less*, if we could make it statutory that a verification of death should be undertaken by some independent official before a body is destroyed by cremation. To my mind the objections to cremation can all easily be disposed of. It is from all points of view the ideal system for adoption in the future for disposing of the dead.

I am, Sirs, yours faithfully,

L. A. PARRY, M.D. Lond., F.R.C.S. Eng.,
Honorary Anæsthetist to the North-West London Hospital.

Bartholomew-road, N.W., May 30th, 1899.

THE GENERAL MEDICAL COUNCIL AND THE PROPOSED CONCILIATION BOARD.

To the Editors of THE LANCET.

SIRS,—It must be allowed, I think, that the idea of bringing together the representatives of the friendly societies and the members of the medical profession is a good one. At the same time it must be apparent that the General Medical Council have not gone sufficiently into detail in their scheme.

We are all aware that the friendly societies possess at the present moment a thoroughly workable organisation and that they are prepared at a very short notice to nominate and elect men to represent them on a conciliation board. On the other hand, it is evident that the medical profession have no such organisation to deal with such a question. The point which appears to me of the greatest importance is: How are the representatives of the medical profession to be elected and by whom? I submit that neither the British Medical Association nor the medical defence societies could undertake such a duty. What I propose for the consideration of the profession is the formation of an association of medical officers connected with friendly societies. Let a conference be called of such officers at an early date and let it appoint a committee to formulate a scheme for the establishment of a permanent association. In the meantime perhaps you, Sirs, will permit your columns to be used for the discussion of this very important subject. I cannot conclude without expressing the satisfaction which is felt with the decision of the General Medical Council in respect to the connexion of the medical profession with those particular associations which combine medical aid with life insurance.

I am, Sirs, yours faithfully,

Cardiff, June 10th, 1899. T. GARRETT HORDER.

To the Editors of THE LANCET.

SIRS,—The resolution of the General Medical Council, "That this Council regards it as unprofessional to hold the appointment of medical officer to associations which systematically practise canvassing and advertising for the purpose of procuring patients," is a step in the dark, and one which may involve endless troubles and worry to medical officers of clubs all over the country. Who is to decide what is systematic canvassing and advertising? All the large friendly societies canvass and advertise, but the Council dare not touch their medical officers, for they have a strong Parliamentary vote behind them. It is the medical officers of the small clubs, generally young struggling practitioners, who will be the ones to suffer. Some medical neighbour, smarting at some real or supposed interference with his patients, will report the club to the Council, and the medical officer, dreading the expense and worry of defending himself, will have to resign. The result will be that the great friendly societies will soon exterminate the smaller clubs and our younger men will have to start as assistants to the present club medical officers and be sweated by them instead of obtaining independent practice. From a professional point of view the want of a wage limit and inadequate fees are far more objectionable than canvassing, for after all there are but few patients who will change their medical man at the request of an agent unless he can offer them better terms. The resolution of the Council practically makes the medical officer responsible for the action of all the agents of the association, with the fearful penalty of utter professional ruin if they are detected canvassing. If it applied to all clubs it would not be so objectionable, but a knowledge of modern politics teaches us that it can and will only be applied to the weaker ones. If the friendly societies refuse to accept a wage limit, which is the key to the whole matter, I fail to see what good can come out of the board of conciliation.

I am, Sirs, yours faithfully,

June, 1899. X.

THE MICROCOCCUS OF BERI-BERI.

To the Editors of THE LANCET.

SIRS,—I came recently across, in THE LANCET of June 25th, 1898, a communication from Dr. W. K. Hunter in which he speaks of a staphylococcus with rapid motion to be found in the blood of beri-beri patients and suggests that it may be the cause of the disease. I have long been cognisant of a micrococcus easily grown from blood and spleen on agar or gelatin, the growth being non-penetrating, greyish in colour, raised, and having very ragged edges. These cocci are most motile and the fresh blood in some cases is frequently crammed with them. With few exceptions the blood of all my beri-beri patients contained them. Wishing to inoculate some animals with these cocci I was unable to obtain any whose blood was not already rich with them. Later I found that many healthy patients had them in quantities and still later that they were present in the blood of myself and other European officers. This was now nearly two years ago, since which time I have been quite healthy and, I may mention, have never in my life suffered from any symptom of beri-beri or from fever of any description. A few of my patients suffering from beri-beri have had their blood quite free from the cocci throughout their attack. I have long come to the conclusion that the coccus is non-pathogenic and is contained in the blood of the majority of people living in this colony. Probably it is derived from meat, as so many animals possess it in such abundance.—I am, Sirs, yours faithfully,

W. GILMORE ELLIS,
Medical Superintendent of the Government Lunatic Asylum, Singapore.

Singapore, May 8th, 1899.

THE PLAGUE COMMISSION.

To the Editors of THE LANCET.

SIRS,—My attention was only recently drawn by a friend to a report of the evidence taken by the Indian Plague Commission at Bombay and which is published in THE LANCET of Dec. 24th, 1898, p. 1740. I find that I have been reported

[3] THE LANCET, May 27th, 1899.
[4] The Times, May 1st, 1884.

as follows: "Dr. Galeotti, representing Professor Lustig, explained the method of preparing his serum and gave some results obtained at several hospitals. *He admitted that the results were not very satisfactory up to the present time.*" I shall feel thankful if you would kindly correct the last sentence of your correspondent who doubtless misunderstood my evidence or which was not correctly reported to him. I did not state before the Plague Commission that the results of serum treatment were not satisfactory up to that time, and had I done so it would have been contrary to what I have already published. I had occasion to express publicly my opinion on the subject—viz., that the results obtained in plague patients with Professor Lustig's serum were generally very good and encouraging, because the mortality amongst the treated patients was about 53 per cent., as compared with a mortality of from 75 to 79 per cent. amongst non-treated patients. With the serum of one horse the results were most satisfactory, the mortality being reduced by nearly 40 per cent.

I am, Sirs, yours faithfully,

Bombay, April 24th, 1899. DR. GINO GALEOTTI.

POISONING BY GELSEMIUM.

To the Editors of THE LANCET.

SIRS,—The following notes ought to be of interest to the medical profession generally and to toxicologists particularly, because accounts of poisoning by gelsemium are rare.

I took two ounces of the tincture of gelsemium instead of a glass of sherry and returning to the dining-room awaited the result. It was not long forthcoming. (We all live on the ground-floor here.) The few feet travelled to the dispensary found me only too ready to accept the receipt of a helping arm and in another minute the legs were paralysed; dragging myself to the bedside with my fore-limbs they were unable to help me into the bed, into which I was lifted. There was no trouble so long as I lay quiet, but on the least exertion there were excessive tremors. Vomiting occurred during the next 24 hours. The temperature rose to 101·5° F. The heart's action was very violent and intermittent, possibly the aggravation of existing disease.

All the muscles of the eyes must have been affected, but of all the voluntary muscles those of the right side suffered most. Prolonged conversation involved paralysis of the upper lip. The other symptoms were (1) somnolence; (2) no mental excitement; and (3) good appetite. The effect of the drug passed away as it began, from below upwards, but after the arms had recovered vision was not perfect for 24 hours. If this accident had been due to any carelessness of mine I should not have been so ready to give you an account of the effects of gelsemium sempervirens.

I am, Sirs, yours faithfully,

J. H. NANKIVELL,

Cape Colony. District Surgeon.

"CURE OF ASCITES DUE TO LIVER CIRRHOSIS BY OPERATION."

To the Editors of THE LANCET.

SIRS,—I have read with much interest the paper on the above subject by Mr. Rutherford Morison in THE LANCET of May 27th, especially as I think that I was the first to advocate this method of treatment in these cases, and which I have practised with comparative success since 1886. As some considerable time has elapsed perhaps you will kindly allow me to quote briefly from a paper of mine read at the Surgical Section of the Royal Academy of Medicine in Ireland: "When I meet with a case of distended ascitic abdomen I do not, under any circumstances, tap. It is my practice to open the abdomen 'prepared for any emergency' by an incision sufficient to admit my forefinger which will enable an experienced surgeon to ascertain in a minute the exact condition of affairs inside. Should it only happen to be simple ascites (hepatic) the result will be sometimes cure and in any case the fluid will not re-accumulate for a much longer period than if tapped. In malignant disease you make a definite diagnosis and it gives a complete abeyance for an indefinite period of the pain and urgent symptoms and in some cases causes a mysterious disappearance of the growth. This may seem to some of you heroic and incredible, but I can assure you from personal experience that it is fact, and that by this method of treatment not only do you know the exact state of things but you are running less risk (if any?) than by plunging a trocar into a distended abdomen. As to this method of cure we are in the dark and have so far only to accept the fact."

The details of treatment I carry out are very simple and are as follows. After opening the abdomen by a small incision just below the umbilicus I break down adhesions which in some cases are considerable in the hepatic region; I wash out the abdominal cavity with hot water at a temperature of 112° F. until the fluid returns quite clear, and then close it without a drain. I have had some excellent and gratifying results. One woman was able to join her husband in Australia in a few months apparently completely cured; in other cases apparent malignant growths and conditions accompanied by ascites disappeared, and in the rest of the cases the fluid did not accumulate rapidly. In my experience general dropsy contra-indicates operation, as here we have to do with causes outside abdominal.

I am, Sirs, yours faithfully,

Harley-street, W., June 14th, 1899. ROBERT O'CALLAGHAN.

"SIR GEORGE PILKINGTON, M.P., AND THE MEDICAL REGISTER."

To the Editors of THE LANCET.

SIRS,—With regard to your comments in THE LANCET of June 3rd, on page 1503, on the inaccuracy of the Medical Register I think it only fair to state that my name, &c., is not recorded as it should be because I refused to pay the fee of 5*s.* asked to make the necessary change of name. As the completeness and accuracy of the Register are of great importance to the public and the way in which my name appears is of no importance to me I declined to be taxed 5*s.* for their benefit.

I am, Sirs, yours faithfully,

Belle Vue, Southport, June 9th, 1899. GEO. A. PILKINGTON.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS AT BERLIN.

(BY A SPECIAL CORRESPONDENT.)

THE recent International Congress on Tuberculosis at Berlin presented many points of interest to the British physician. Much valuable information was given concerning the distribution, etiology, and prophylaxis of tuberculosis as were a few useful hints concerning treatment, although in the latter department no very startling announcement was made. The immediate object was to encourage the medical profession and the public in Germany by a record of the progress effected during the last few years, of which that country may well be proud; but the influence of the Congress will be felt in many other civilised countries, and notably in England, where after many years' neglect we are beginning to realise the importance of systematic hygienic treatment of consumptives under medical supervision, and of other measures which will probably effect as great a diminution in the mortality from tuberculosis in this country as was effected by the sanitary improvements of the last 40 years.

Dr. Köhler's address brought out afresh a peculiarity in the incidence of tuberculosis in Germany. Compared with the numbers living at each age group there is a progressive increase with advancing age in the incidence of pulmonary tuberculosis, so that the heaviest mortality occurs at the ages of from 60 to 70 years. Dr. Schjerning showed that in the German army the mortality was greatest in those corps which were recruited from densely populated districts; and that whereas workers indoors (regimental bakers, musicians, and the like) showed a large proportion of phthisical cases, in the active troops (infantry, cavalry, artillery, and pioneers) there was a heavy sickness list but very little tuberculosis. Mortality from tuberculosis appears to be falling in all civilised countries, especially that from pulmonary tuberculosis, although the improvement is most marked where the most systematic efforts have been made to combat the disease.

It is no longer a matter of doubt that the bacillus of Koch

is the chief cause of tuberculosis, although it is still disputed how far the clinical features of phthisis are due to other associated bacteria. In this respect Pfeiffer holds different views from those advanced in this country by Kingston Fowler and others, and believes that the hectic fever of phthisical patients is entirely due to "mixed infection." There was a general consensus of opinion that tuberculous milk was a most important cause of tuberculosis in mankind, and that apart from the systematic inspection of dairies and prohibition of the sale of infected milk much could be effected without legislation if everyone insisted on being supplied with milk from tuberculin-tested cows. An important communication from Obermüller dealt with the question of tubercle bacilli in butter. There has been some controversy as to whether infection can take place through this article of food, as the bacilli found in some specimens were said to be examples of an allied bacillus (Petri's butter bacillus) capable of producing anatomically similar lesions in animals whilst less dangerous to man. From the experiments of Obermüller and Frl. Rabinowitsch, confirmed recently by Koch, it appears that undoubted living tubercle bacilli may be found in butter, and the former recommends that the butter be made from pasteurised milk as being both safer and more economical. It is stated that in some parts of Germany as many as 60 per cent. of the cattle are tuberculous, but it is well known that those kept in the open (especially in hilly or mountainous districts) are but little affected. According to Schumburg tubercle bacilli are only found in butchers' meat when there is advanced disease with cavities; but it must be remembered that lymph glands, lymph tracts, and bones are frequently affected, and tuberculous material may be smeared over sound portions of the animal. Flügge insisted on the identity of the bacillus of mammals with that of man, while the identity of avian tuberculosis was not established. He regards the tubercle bacillus as the sole cause of all the symptoms of tuberculosis in man and considers the bacillus as an obligate parasite in man and animals, excluding purely artificial cultivations. Fränkel insisted on the truth of Flügge's views as to the pulverisation of sputa in coughing and sneezing, and pointed out that the chief danger of transmission was in the immediate neighbourhood of the patient, as light and desiccation speedily kill the bacillus, and the disease is further limited by the resistance of the healthy organism to all but large and repeated doses. It was recognised that the danger of transmission exists chiefly in overcrowded and dirty rooms and in dusty workshops. Rubner advocated the separation of sick from healthy workmen and the dismissal of susceptible subjects from unhealthy trades. Leube advocated the use of wadding masks during the bed-making and cleansing of rooms in hospitals and the like. He regarded segregation of phthisical patients in general hospitals as more needed in the interests of the patients themselves than to prevent spread of infection. Out of 312 consecutive cases of phthisis recorded by von Zander infection could be proved in 116 (or 37·3 per cent.). In 20·1 per cent. this was transmitted from a relative, in 6·7 per cent. from husband or wife, and in 10·5 per cent. from fellow workmen or the unrelated occupants of the same room.

Löffler argued that inheritance of the disease might be disregarded as only a pathological curiosity, while an inherited tendency, although probable, had not been proven. Roth urged the importance of early diagnosis and the value of sanatoria from an educational point of view, the need of systematic instruction of the members of sick clubs and in workshops and the like, the need of special arrangements in schools and prisons which have phthisical or susceptible inmates, the care of convalescents, and prompt isolation of phthisical subjects who expectorate bacilli. He also advocated that affected persons should be forbidden to act as wet nurses or sick nurses or in the preparation of food. He was in favour of notification of cases of tuberculosis in private nursing homes, asylums, almshouses, and the like, and in private houses where a change of abode occurred, so that disinfection and other protective measures could be enforced. No doubt this would be easier in Berlin (where everybody has to notify his arrival to the police) than in England, although even in this country voluntary notification (e.g., at Brighton) has worked well. Roth further advocated the separate disinfection of clothing used by phthisical subjects and thorough disinfection of bedding and rooms after death. Kirchner discussed the question of marriage of phthisical subjects, and although satisfied that compulsory prevention of such marriages was impossible, yet urged that full information should be given by the medical man wherever they were contemplated, and special precautions taken both for the sake of the patients and of their offspring and those living with them. Everyone is nowadays agreed as to the importance of properly dealing with the sputa of phthisical patients. Ritter von Weismayr recommended that the sputa should be thrown into the water-closet, or mixed with peat and burnt, or with lime and buried, and that random spitting should be forbidden. An interesting paper was read by Malvoz on the Bacteriological Institutes in Belgium which gratuitously examine sputa and disinfect rooms, half the cost being borne by the State. In order to teach phthisical members of the working class how to conduct themselves it has been found necessary to erect a popular sanatorium in connexion with one of these institutes.

The enormous extension of the sanatorium treatment in Germany under the influence of the Insurance Law makes it quite impossible to deal with the subject there. The existence of immune zones is no longer a tenable hypothesis, and healthy places of many kinds are now regarded as sufficient for the cure of patients by systematic measures. As regards treatment, apart from a masterly paper on Climate by Sir Hermann Weber and a description of the methods used and the good results obtained at Ventnor by Sinclair Coghill, the chief interest for British members centred in the papers of Kobert, Landerer, Brieger, Denys, and Campana. Iodoform was regarded by Kobert as the best remedy for surgical tuberculosis, and orthoform and lactic acid for laryngeal complications. Miliary and galloping tuberculosis were considered to be incurable, while cases of ordinary phthisis could be readily arrested by the hygienic and dietetic methods associated with Brehmer's name, aided by ordinary symptomatic treatment. Kobert and Landerer both praised the use of cinnamic acid to provoke leucocytosis. Brieger still regards tuberculin as useful in early stages and is supported by Campana of Rome, and by Denys of Louvain who uses a special preparation. The use of anti-tuberculous serum as prepared in America was advocated by von Schweinitz who also quoted Stubbert in support.

To sum up, the general impression left by the Congress was that while no specific has yet been discovered, we have in the shape of systematic treatment by hygienic measures, especially in suitable sanatoria and health resorts, most potent and sufficient means of treatment in all early uncomplicated cases of phthisis, while still more is possible in the way of prevention.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Transport of Plague Microbes: Stringent Regulations.—The Misfortunes of Karachi.—Plague and Cholera.—Minor News.

IT will be remembered that in June of last year two cases of plague occurred on board the steamer *Carthage* on her voyage to Europe. It so happened that a medical man who was a passenger made during the voyage some experiments with what were supposed to be plague microbes. No dead rats were found on the homeward voyage but at least two were found on board the vessel on her return voyage to Bombay. The result of these coincidences appears to be that the Government of India have thought it necessary to make the following regulations. "1. No person without the written or printed permission in this behalf of the local government in whose territories the port is situated under the signature of a Secretary to Government first obtained, shall take either on his own person or in any baggage or parcel or as cargo or otherwise howsoever, or shall send or permit to be taken or sent on his account either on the person of another or in any baggage or parcel or as cargo or otherwise howsoever any plague microbes or cultures on board any vessel in any port in British India. 2. No person, whether he has or has not obtained permission as hereinbefore required, shall take, send, or permit to be taken or sent as aforesaid any such microbes or cultures on any such vessel at any such port unless and until he has (1) given

14 clear days' notice in writing of his intention so to do to the health officer of such port, and (2) by a certificate signed by such person and in such other manner as may be required by such officer satisfy such officer that all such microbes or cultures (*a*) are addressed to and intended for scientific purposes at some recognised constituted laboratory or laboratories specified by such person in his own handwriting and (*b*) are secured in a tin or tins (i.) of adequate strength, (ii.) hermetically sealed, and (iii.) labeled with such distinguishing inscription as will suffice to make immediately manifest the nature of the contents thereof."

While Karachi was just getting over its third severe visitation of plague it was attacked with cholera. This is now said to be spreading alarmingly. On May 22nd 178 cases and 162 deaths occurred. There were only two deaths from plague, but the total mortality from all causes was 183. For a city of the size of Karachi this is enormous. Cholera at present is confined to two quarters. The epidemic of plague has almost made bankrupt the municipality, but money is "sanctioned for stamping out the disease." The Bombay Government has sanctioned Rs.10,000 for the relief of the distressed and starving Mekrains who are principally the victims of cholera. In addition to these troubles foot and mouth disease has occurred in the municipal stables. It is said that several stray cattle suffering from the disease have communicated the disease to the municipal bullocks by infecting the water trough in the Runchore Lines, where all kinds of animals quench their thirst. The water trough continues to be used and fresh cases are occurring every day. Segregation of the sick animals has been adopted.

The extraordinary precautions exercised with the idea of securing Simla from an importation of plague appear almost fanciful in their elaborateness. Persons employed in any Government office in Simla are to be prevented from visiting the Bombay Presidency, certain parts of Madras, Calcutta and neighbouring districts in Bengal, and the States of Mysore and Hyderabad. Those who are compelled to go to any of these places on urgent business must be provided with a pass and on their return the inspecting medical officer will have to give a certificate that they have undergone the necessary inspection and disinfection.

The voice of the agitators against experimental science has apparently been heard. After an encouraging and enthusiastic commencement the Indian Princes' Victoria Health Institute has suddenly collapsed. Official intimation has been given that the scheme will not be proceeded with. No details are supplied but evidently the native princes cannot appreciate how much suffering is capable of being mitigated by a clearer knowledge of disease.

The plague summary for the week ending May 20th shows a marked general improvement. In all India there were only 953 deaths from plague—a less number than in any week since July, 1898. In the Bombay Presidency there were 560 deaths, of which Bombay city records 221. This shows a marked decline from the 323 recorded for Bombay city in the previous week. At Karachi the deaths from plague fell from 171 to 98 and in Calcutta from 60 to 23. The general health of Calcutta as measured by the exceptional low general mortality would appear to be remarkably good.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Manchester Corporation Fined.

ON May 30th the Manchester Corporation was summoned before the County Police Court for polluting the Ship Canal and was fined with costs £50. The two chief local daily papers, though opposed in politics and most other things, agree in thinking that the corporation "cut a somewhat sorry figure" and that if it "possessed such a thing as a conscience it would feel ashamed." Its law-breaking has extended over six years, so that the Mersey and Irwell Joint Committee cannot be said to have been hasty in instituting proceedings. It is stated that the sewage of the city is still polluting the Irwell and the Ship Canal to a degree dangerous to health as well as offensive to the smell, and that the condition of the effluent is practically the same as in 1896. The Rivers Committee have been experimenting and investigating, one scheme has been brought forward after another, the council in its bewilderment has been vacillating, not knowing which way to go, and all the time the filthy sewage has been pouring into the canal. But, after all, the corporation should not be judged too harshly. It has been beset with difficulties on all sides and at a period when everything relating to the treatment of sewage was in a state of transition, and the Local Government Board, which might have expedited matters if expedition had been its *forte*, has added to the difficulties. If it would without more hesitation sanction the bacteriological scheme it would most likely be carried out without further loss of time. The Lord Mayor stated that as soon as the Local Government Board report on this subject was issued he would call a special meeting, and he thought that the present scheme would be agreed to by a majority of the council.

Notification of Phthisis.

The medical officer of health of Manchester submitted a report to the Sanitary Committee at the last meeting with reference to the notification of phthisis within the city. As might be expected, the recommendations of the report were thorough. The estimated cost was £1500 and the appointment of a medical man at £200 a year to visit cases at their own homes and investigate the circumstances under which the disease had been contracted and the condition and arrangements of the home was recommended. His duties would also extend to institution cases. Clearly the gentleman appointed would require diplomatic tact and delicacy of feeling to an extent that would be cheap at £200 a year. The Sanitary Committee adopted the report and it was discussed at the council meeting on June 7th. Strong exception was taken to many of the regulations, one councillor of vigorous rhetoric denouncing them as Russian in character and "about as big a piece of espionage, tyranny, and blackmail as any English council could be guilty of approving." He moved that the "regulations for the notification of cases of phthisis submitted by the Sanitary Committee be sent back for further consideration," and this amendment was carried. It would be unfortunate if there were any check to the efforts now being made for the eradication of phthisis, but if these efforts are to be successful they must be devised and carried out with such care and consideration that they will not trample under foot all domestic feeling. It would be better to begin tentatively than at once to launch a scheme theoretically perfect.

Manufacture of Gas Products.

Some short time since a deputation from the Miles Platting district—which suffers much from the foul odours sent out from various "works"—requested the Gas Committee to manufacture sulphate of ammonia from their by-products rather than let others do it, as it was hoped that more care would be taken to prevent the nuisance which is now so often almost unbearable. This idea was favourably received and the committee recommended the council to apply to the Local Government Board for sanction to a loan of £25,000 for the building of the necessary works. This proceeding has brought a letter from a firm hitherto largely engaged in dealing with the Gas Committee's by-products offering to do the work at a very low price. The chairman of the Gas Committee is reported as saying that whether they would recommend the council to obtain power to borrow the money or not "remained to be seen when the prices offered by the firm in question were submitted to them." From this one would fear that the cry of distress from Miles Platting is already forgotten. The least that the corporation should do would be to see that whoever does the work should use the best possible means to prevent it causing an unwholesome and most unsavoury nuisance. Presumably, therefore, the present methods must be amended and the corporation should see that the improved method is carried out.

A "Conscientious Objection."

"Conscientious objections" are rarely amusing, but one given the other day at the Blackburn Police Court seems to show that objectors may have a sense of humour which is not always, however, responded to by the magistrates. A man hesitated to give his reason for objecting conscientiously, but on being pressed said: "Well, if the child is vaccinated it will keep us awake all night." He was told that he would have to find a better reason and "retired amid general laughter."

The Royal Infirmary Site.

The amount suggested to the Infirmary Board as the price

to be paid by the corporation for the purchase of the whole of the infirmary site is said to be £400,000.

June 13th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Consumption Hospital for Dundee.

SEVERAL considerable sums of money have already been promised as contributions towards the erection of a hospital for consumption in Dundee. The committee appointed to raise funds for the building met on June 2nd. At that meeting it was decided that the hospital should be available for all classes of patients either with or without payment, the matter being under the control of the directors. It is desired that subscriptions should take the form of capital sums as endowments or of annual subscriptions. Subscribers of £1000 and upwards shall during their lifetime have absolute presentation to one bed. Steps are being taken to secure a site for the hospital. The high ground in the Carse of Gowrie has been suggested as a suitable situation.

Cottage Hospital for Blairgowrie and Rattray.

It is expected that in about a month the building of the cottage hospital for Blairgowrie and Rattray will be commenced. A site of about an acre in extent has been given by Mrs. Macpherson of Blairgowrie and £3000 have already been subscribed towards the building fund, £1000 having been given by Lieutenant-General Sir James Clerk-Rattray of Craighall and £500 each by Mrs. Nicoll of Blairgowrie and Sir William Laird of Glasgow. The estimated cost of the building is £1000, but at least £5000 are needed for furnishing and partial endowment of the institution. The district for which the hospital is intended extends from Glenshee and Strathardle in the north to Coupar-Angus in the south, and from Alyth in the east to Cluerie in the west.

Infectious Hospital for Lockerbie District.

Negotiations are proceeding between the burghs of Moffat, Lockerbie, and Lochmaben with reference to the creation of a joint hospital for infectious diseases.

Gift to Paisley Infirmary.

Mr. Peter Coats, Paisley, who has already been a large contributor to the erection of the Paisley Infirmary and who has built a handsome home for the nurses of the institution, has just offered to build an additional block to the infirmary for the treatment of infectious diseases. The new block will be 24 feet by 14 feet, and will contain a male and a female ward, each to accommodate three patients, and there will be a lavatory, bath, and nurses' accommodation.

Death of Mr. Robert Moir, M.D., F.R.C.S. Edin., St. Andrews.

Dr. Robert Moir, who had been ill for about a fortnight, died at St. Andrews on June 7th. Dr. Moir was the second son of "Delta," the late Dr. Moir of Musselburgh. He was in his sixty-ninth year and took a prominent part last year in his father's centenary celebrations. Dr. Moir had practised in St. Andrews for the last 25 years and previously was a surgeon-major in the Indian army. He has left a widow, three sons, and three daughters to mourn their loss.

The Cemetery Scandal in Aberdeen.

During the past week investigations were carried on in Nellfield Cemetery under a warrant from the sheriff, obtained on the motion of the Crown officials. The operations extended over four days, Professor Hay, M.D. Edin., being present as medical expert. The general public and pressmen were excluded while the Crown examination was being conducted, but the reporters for the evening papers stationed themselves in high windows or back gardens adjoining the burying-ground and published alarmist reports of gruesome discoveries having been made. The reading of these reports has produced much mental disquietude among lairholders, one at least of whom has died from the excitement so caused, while huge crowds were also drawn by morbid curiosity to the cemetery when it was reopened to the public in the evenings. There have also been manifestations of popular indignation against the factor of the Baker Incorporation, although it is pointed out that none of the irregularities complained of have taken place during his term of office. Private lairholders have likewise been making examinations of the portions of ground belonging to them. On June 10th William Coutts, the late superintendent, was again brought before the sheriff, when nine fresh criminal charges of desecration of graves and mutilation of bodies were preferred against him. His application to be admitted to bail was refused in view of the serious nature of the charges and he will be tried before the High Court of Justiciary in Edinburgh. It is expected that Dr. Hay, in his capacity of medical officer of health of the city, will make a report to the local authority under the Public Health Acts as to the system of overcrowding which has prevailed in the cemetery, while two members of the town council have given notices of motion to the effect that the municipality shall provide a new and properly-regulated burying-ground to be managed by the municipal corporation.

Conference in Aberdeen on Tuberculosis.

Representatives from the Aberdeen Town Council, the Royal Infirmary, the Dispensary, the Royal Hospital for Sick Children, the Parish Council, the Morningfield Hospital, and the local branch of the British Medical Association met in conference last week. It was agreed that a sanatorium ought to be provided. Doubts were expressed as to the power of the town council to erect and maintain such an institution at the cost of the local assessments, but it was agreed that if tuberculous diseases are not at present embraced in the list of notifiable infectious diseases, steps should be at once adopted in order to secure their inclusion.

June 14th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland.

AT the recent election at the Royal College of Surgeons in Ireland for the President, Vice-President, and Council, Mr. Robert L. Swan and Mr. Thomas Myles were re-elected as President and Vice-President respectively. The only changes in the *personnel* of the Council were the replacement of Mr. Henry Croly, Mr. Arthur Benson, and Mr. Arthur Chance, by Professor John B. Story, Professor William Stoker, and Mr. Richard McCausland. There will be a vacancy for the position of Vice-President in next June, when Mr. Myles will enter on his two years of office as President. The candidates who have already announced their intention to contest this vacancy are Mr. Francis Heuston, surgeon to the Adelaide Hospital, and Mr. Lambert Ormsby, surgeon to the Meath Hospital. A letter from the latter gentleman on this subject appeared in THE LANCET of June 10th.

Action for Damages against a Medical Officer of Health.

Dr. Joseph Smyth of Naas has recently obtained a legal decision in his favour which is of importance to all medical officers of health. In that capacity he made a report some months ago advising that a certain dairy establishment in the neighbourhood of Naas should be closed, two cases of typhoid fever having occurred in the house of the owner of the dairy and five persons who obtained milk from that establishment having also suffered from the same disease. The proprietor of the dairy brought an action against Dr. Smyth for £1000 damages for injury to his business. The case came quite recently before his Honour Judge Kane who dismissed the action on the ground that to recover damages in such a suit malice on the part of the medical officer of health should be proved. As far as the published reports of the case go there was not even an assertion of malicious action on the part of Dr. Smyth.

Presentation to Dr. Dysart, J.P., of Portglenone.

Dr. Dysart, J.P., Portglenone, co. Antrim, has been presented with a silver tea and coffee service and silver bowl together with an illuminated address on the occasion of his resignation of the position of medical officer of the Portglenone dispensary district after a long and honourable service of 51 years. A purse of sovereigns was also presented to Mrs. Dysart. Dr. Dysart has been for a long period one of the most respected and valued medical men in the county of Antrim.

Report on the Belfast Workhouse.

Mr. Agnew, the Local Government Board inspector, has made his half-yearly report on the state of the Belfast Workhouse. He refers to the serious overcrowding and want of proper sanitary accommodation in certain departments of the establishment, to the objectionable state of some of the closets in the infirmary, to the non-observance of

cleanliness in the lock and skin wards, to the inadequate supply of water to the healthy nursery and infirmary and the consequent inefficient flushing of the closets, to the defective ventilation of certain wards in the female infirmary, and to the objectionable mode of distributing the food of the inmates. The report is to be considered by the guardians.

Water-supply of Portadown.

At a meeting of the Portadown District Council on June 5th it was unanimously resolved: "That we are of opinion that the town should have a water-supply." A difference of opinion took place as to whether the water should be taken from the River Bann or from Lough Neagh. Finally it was decided to take the water-supply from the River Bann.

Health of Belfast.

In the report presented by the health officer of Belfast at the meeting of the City Corporation on June 7th it is stated that the present death-rate is 24·2. The number of cases of zymotic diseases notified during the previous four weeks embraced in the report was greater than in the preceding month. Typhoid fever is increasing, as are the deaths therefrom, perhaps on account of the warm weather following the previous heavy rains. The number of cases of scarlet fever is also larger, though the mortality is very slight.

Royal University Graduates' Association.

A Northern Graduates' Association composed of those who have taken their degrees in the Royal University has been recently established and the members held their inaugural meeting in Belfast on Jan. 10th when Dr. W. A. M'Keown was elected President and Dr. R. W. Leslie with three other arts graduates were appointed secretaries. As a condition of membership adherence to the following rule is essential—"The Royal University Graduates' Association is an association of those graduates who are opposed to the establishment of provincial or sectarian universities as being detrimental to the best interests of higher education in Ireland and as involving the depreciation of Irish academic degrees and distinctions." Resolutions were adopted at the meeting against the establishment of state-endowed universities under sectarian control; calling upon the graduates of the Royal University to cordially unite in supporting their university, and so to strengthen the hands of the senate in carrying out needed reforms; and declaring that reform is urgently required in several respects and more especially (*a*) in the mode of appointment to fellowships and examinerships and (*b*) in relation to the appointment of extern examiners.

June 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Hydatid Cysts of the Liver.

AT the meeting of the Academy of Medicine held on May 30th Professor Dieulafoy related two cases of cure of hydatid cyst of the liver. The first case, in which suppuration had occurred, was treated by abdominal section and incision of the sac; the second, in which the fluid was in a normal condition, was simply aspirated. Professor Dieulafoy had brought forward these two cases in order to compare the two methods of treatment and to study the indications for preferring the one to the other. According to Professor Dieulafoy those cases of death which occur within a few minutes of the puncture of the sac are due to the escape into the peritoneal cavity of hydatid fluid which is extremely toxic. The most minute precautions should be observed to prevent such a thing happening, and the chief point is to empty the sac as completely as possible and not simply to partially evacuate it as has been the case nearly every time that death has followed. A very fine needle should be used and never touched after insertion. If by some misfortune this should become blocked it is better to leave it alone and insert another. The two needles must be removed together as soon as the fluid ceases to flow. No pressure must be made on the abdomen with the idea of helping the escape of the fluid, for such pressure is very likely to make the needle come out of the liver and so escape of fluid into the peritoneum is not unlikely to happen. Aseptic puncture aided by aspiration and with observation of the above-mentioned precautions is applicable, according to Professor Dieulafoy, to about half the cases seen, especially to those cases where the cyst is not very old or very large and where there is an absence of symptoms indicating infection, such as pain and rigors. Abdominal section with incision and removal of the sac should be reserved for cases in which the cyst is very large and has existed a long time, in which adhesions are present, and in which infection of the sac has taken place.

The Therapeutic Value of Cacodylate of Sodium.

At the meeting of the Academy of Medicine held on May 30th Professor Renaut of Lyons made a communication with regard to the methods of administering arsenic by increasing doses which give the best results. To avoid the gastric intolerance which is so serious a hindrance to obtaining the best effect of arsenic administered in the ordinary way he prescribes Fowler's solution administered as a rectal injection, giving three syringefuls per diem of a solution made by mixing four grammes of Fowler's solution with 56 grammes of distilled water, and in this way the patient absorbs from one-third of a centigramme to one centigramme of arsenious acid per diem. Professor Renaut has also, at the suggestion of Professor Gautier, made use of the cacodylate of sodium, a salt which contains nearly 50 per cent. of arsenic and which has the great advantage of being non-toxic, for even one gramme injected into the veins of a rabbit does not cause death. Professor Renaut employs a solution containing 1·10 gramme of the salt to 1000 grammes of water and injects two syringefuls of this solution into the rectum per diem for two days, and then three syringefuls per diem for six days, after which the patient is allowed a rest for five days. Cacodylate of sodium acts as a gentle nervine tonic and prevents waste. It has no bactericidal powers, but delays tissue change and places the tissues in a better position to resist infection. It is useful in the treatment of the early stage of localised and still curable tuberculosis, also in diabetes, Basedow's disease, and the like. In a case of splenic leukæmia treated by cacodylate of sodium the proportion of the red corpuscles which had fallen to 600,000 was raised in less than 20 days to 3,038,000 and to the normal figure of 4,030,000 in less than three months. At the next meeting of the Academy, held on June 6th, Professor Gautier continued the discussion of the subject introduced by Professor Renaut. In a very important communication he described cacodylic acid as a most valuable remedy which would yield quite extraordinary results in the treatment of such a condition as tuberculosis. Although Professor Renaut had been the first to publish his observations Professor Potain, M. Burlureaux, and M. Roustan some months ago simultaneously commenced experimental trials and all of them had expressed the most confident hope of possessing in cacodylic acid an energetic substance capable of rendering the tissues of the human body resistant to tuberculous infection. It has, in fact, been ascertained that the local signs of tuberculosis gradually improve, that the cough and perspiration diminish, that the patient gains weight rapidly, and that the red blood corpuscles increase in number. It is interesting to note that in one respect Professor Gautier differs in opinion from Professor Renaut, the latter of whom sees in the new remedy a means of obtaining the ordinary effects of arsenic and also of administering it in unusually large doses, the toxic power of the arsenic being reduced by its association with an organic body. In the opinion of Professor Gautier this is not all. The arsenic which exists in large quantity in cacodylic acid is in a special condition, no longer giving the characteristic reactions of arsenic. This explains why cacodylic acid is not poisonous and does not even produce the troublesome symptoms due to arsenic, such as diarrhœa, staining of the skin, paralysis, and hepatic lesions. The explanation which Professor Gautier suggests for this unexpected diversity of action is that the new arsenical compound replaces phosphorus in the lecithins and nucleins. It is therefore living matter impregnated with arsenic that the leucocytes disperse throughout the circulation and bring into contact with the nervous centres where it seems to become fixed. Cacodylic acid being non-poisonous differs entirely in its physiological effects from the older arsenical compounds which when introduced into the blood act as well-known poisons. Brought into direct contact with the nervous tissue, as has been done by M. Beredska, arsenic is extremely poisonous, exactly 100 times more so than when taken into the stomach or administered hypodermically. For tuberculous patients it is better to give the cacodylate of sodium hypodermically than by the mouth. The dose

of 10 centigrammes (one and a half grains) a day ought not to be exceeded; on an average from two to five centigrammes should be given in 24 hours. The injections should be continued for seven or eight days, then stopped and resumed as before after a week's interval. When Professor Gautier had brought his communication to a close remarks were made by several members of the Academy, including M. G. Hayem and M. A. Robin, who said that it was quite unreasonable to presume a similarity between treatment with cacodylic acid and treatment with arsenic, as Professor Renaut had done, the former being essentially a stimulant whilst arsenic inhibited tissue change.

Compensation for the Slaughter of Tuberculous Animals.

In France animals found to be tuberculous are slaughtered under the official regulations and the carcasses are seized, an occurrence which has become much more common since tuberculin has been employed for the early diagnosis of tubercle in animals. The law of April 13th, 1898, has provided for the payment of compensation to the owners of animals sacrificed in this way in the interests of public health. The compensation is on the following scale: (1) when the tuberculosis is very extensive one-third of the animal's value at the time of slaughter; (2) when the disease is localised three-fourths of this value; and (3) when the carcass of an animal slaughtered by official order is found to be free from tubercle the full value of the animal as above. In all cases the price of the meat and offal sold by the owner, with the permission of the *maire*, is deducted from the compensation above mentioned. Compensation must not exceed 200 francs (£8) for one-third of the animal's value and 450 francs (£18) for three-fourths of its value.

June 14th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Self-inflicted Injuries Diagnosed by the Roentgen Rays.

A FRESH proof of the practical utility of the Roentgen rays has been supplied by a case published by Oberstabsarzt Dr. Baehren of Wiesbaden. A soldier who alleged that he had been bitten by a horse was admitted into the military hospital with a swelling of the third finger, especially marked at the tip and extending to the back of the hand. A sinus developed after several weeks in the neighbourhood of the joint between the first phalanx and the metacarpal bone and the introduction of a probe showed the bone to be denuded of periosteum. The sinus healed up after being laid open and cauterised, but the swelling continued and the mobility of the finger was impaired. An examination of the hand by the Roentgen rays resulted in the discovery of five needles in the second and third interosseous spaces of the metacarpus. There was also a small, scarcely visible, sinus in the fold between the second and third fingers. On the following day the skiagraphic examination showed only four needles the man having extracted one of them through the sinus. All the needles were removed by a large incision and the hand became quite normal. The man at first pretended that he did not know how the needles had come into his hand, but he afterwards admitted that he had introduced them because the hand was painful and he expected relief from the escape of blood. He had evidently inflicted these injuries on himself in order to obtain his discharge from military service, not foreseeing that by the aid of the x rays his imposture would be detected.

General Practitioners in Surgical Cases.

The professional competence of general practitioners has been gravely called in question by a judgment pronounced in a law court of Charlottenburg, a suburb of Berlin. A general practitioner being asked to see a child who had fractured his femur called in a surgical specialist who applied a bandage and made no further attendance but left the after-treatment to the general practitioner. Evidently the bandage was too tight, a fact which escaped the notice of the general practitioner; gangrene set in, amputation became necessary, and the general practitioner was thereupon prosecuted. The court, after having heard the opinion of several medical experts, adjudged him not guilty for the following curious reasons: (1) that the disastrous issue of the case was not attributable to the general practitioner but to the specialist who had been consulted and who had left the control of the bandage to a general practitioner; and (2) that the court was of opinion that a general practitioner without special surgical training ought not to be allowed to have charge of severe surgical cases. The *Deutsche Medicinische Wochenschrift* in discussing the circumstances rightly points out that this decision impugned the reputation of the medical profession in general, and was moreover at variance with medical ethics, for it would have been an infringement of medical etiquette if the surgeon had continued his visits without having been asked to do so by the medical attendant of the family. The article goes on to remark that this decision tended to induce the public to abstain from consulting general practitioners when surgical questions were involved and that the medical societies ought to protest against the suggestion of the law courts that none but surgical specialists were competent to attend surgical cases.

The Sick Clubs.

According to a publication issued by the Imperial Statistical Office there were 22,477 sick clubs under the workmen's insurance laws in 1897, against 22,011 in 1896 and 21,588 in 1892. The number of members was 8,337,319; the number of patients was 2,964,937. The income of the clubs was 16,781,000 marks (£889,000); the expenses were 13,394,000 marks (£669,700), of which 12,049,000 marks (£602,450) were paid for treatment in hospitals or by medical officers, for medicines and bandages, and for the maintenance of the patients and their families, the rest being general expenses for club offices, treasurers, clerks, &c. These large numbers show how great must be the influence of the clubs on the condition of the medical profession and on medical matters in general. The clubs were invited to send delegates to the Congress on Tuberculosis and a great number of them actually attended. A congress of sick clubs was, moreover, held simultaneously with the Congress on Tuberculosis and objections were made to the resolutions of the Practitioners' Associations[1] concerning the compulsory "free-choice system."

June 13th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Hydrophobia.

ISTITUTI ANTIRABBICI are now established and in working order at nearly all the great centres — Naples, Rome, Milan, Turin, and, finally, Florence — having each its effective institution for the treatment of rabies canina communicated by dog-bite to the human subject. Their annual reports are generally as satisfactory as they are interesting, and Milan especially has a sustained record of cures hardly inferior to that of the Pasteur Institute itself. But there are many innovations to be brought into the relieving service of the provinces before these institutions can give the poorer class of victims the full benefit of their treatment. Let me illustrate the situation by a concrete instance. In a country village, several hours distant by rail from the Istituto Antirabbico, a dog of unknown origin or antecedents bites about a dozen persons; the animal is caught but not killed as "mad" till after 40 days; and meanwhile the bitten subjects, with no time to lose, must be made to undergo the appropriate treatment. But how are they to be conveyed to the Istituto and once there how are they to be maintained? In law the commune in which the village lies is not bound to undertake their transport or maintenance; this is a fact, tested and decided by appeal to the Consiglio di Stato and the Court of Cassation. Recourse is therefore had to the local Congregazione di Carità; but these benevolent societies are oftener than not too heavily drawn upon by other necessitous cases to have the required subsidy at their disposal. Failing this, there is an appeal to private charity—again rarely responded to, "non possumus" or "my poverty but not my will consents" being the justification of refusal. In despair the wretched "morsicati" (bitten subjects), knowing they have not an hour to lose and haunted by a terror that reduces their chance of cure, apply to the local "gombeen man" or usurer; but his rate of interest is too high and the money cannot be raised though it amount to no more than 60 francs (£2 8*s.* 4*d.*) per

[1] THE LANCET, May 20th, p. 1398.

head. So for such cases the Istituto is practically non-existent, or if by dint of canvassing or an appeal to the general public the money is at last forthcoming the time lost deprives the poor victims of whatever chance the Istituto could vouchsafe them. So the dread malady runs its course, the victims die in excruciating agony, if, indeed, they do not fatally inoculate the loving hands that tend them through the closing scenes. Till a proper Assistance Publique is established the Istituti, I repeat, are virtually closed to all but the citizens in their immediate neighbourhood or to such provincials as can afford to come to them. Two months ago in the Canavese district (Alta Italia) one dog bit 12 people and numerous other dogs belonging to eight communes in the neighbourhood. Hygienic precaution counselled the destruction of those dogs, but their owners would consent to no such step and the animals were kept "in osservazione" for the regulation period of 40 days during which they bit several incautious persons. At San Martino (still in the Canavese district) an individual whose dog was bitten by the mad dog above referred to kept his own animal 52 days "in osservazione," till seeing it in apparent good health he unchained it with the result that a few days thereafter it bit his own son whom (fortunately for him) he was rich enough to send to the Istituto Antirabbico at Turin. A brilliant exception to the sombre rule which I have just been indicating reaches me from Cigliano in the province of Asti. A dog, unknown to the inhabitants, bit 14 of them and several other dogs and was thereafter caught and killed. The Syndic of Cigliano, nobly anxious for the health or lives of his fellow-citizens, had the victims all sent to the Istituto at Turin while the Commune of Cigliano undertook what must have been the grave burden of boarding and lodging the said victims during all the time of their treatment, the cost amounting to over 750 fr. (£30). Why cannot similar provision be made in like circumstances in all communes throughout the kingdom? But Cigliano is exceptionally well-to-do I am told. Then what is the Government about? The Government, between its Abyssinian and its Chinese annexations and the military and naval expenses which it has to meet, is so desperate for money that, as mentioned in these columns on the authority of the Prime Minister, General Pelloux,[1] it can afford for the 3263 communes in the Italian Kingdom no more than 8000 fr. (£320) for all hygienic purposes whatever—that is, about sixpence for each commune! I have not heard of any legislation being introduced to meet this scandal, except, indeed, a Bill to enable communes to borrow on advantageous conditions. But as these communes are generally deep in debt and can produce no security worth considering, the Bill, even if carried, will do little or nothing for the health or the lives of the lieges. How long is this to last? Or when will "that blessed word" "pazienza" cease to paralyse reforms?

The Behaviour of some Compounds of Iron in Artificial Digestion.

At a recent meeting of the Reale Accademia di Medicina in Turin an important paper on the above subject was communicated from the Chemico-Physiological Laboratory directed by Dr. Piero Giacosa, Professor of Materia Medica in the sub-Alpine school. The researches and conclusions which it embodied were the work of Signor Gola, student in medicine. He examined various specimens of the albuminates of iron of commerce or as prepared by himself in the laboratory according to the prescribed methods, and thereafter he examined the peptonates and the "ferratin" of commerce. Besides the "classical reaction" of the sulphide of ammonium he employed a new reaction of Macallum, modified by Marfori, to distinguish the organic from the inorganic compounds of iron. This reaction consists in the addition to the ammoniacal solution of the preparation in question of some drops of an aqueous solution of hæmatoxylin, which is coloured blue with the inorganic and a violet red with the organic compounds of iron. He concluded that the albuminates have reactions of organic iron, while the peptonates and the "ferratin" of commerce comport themselves like the common citrates and lactates of iron. Reverting to the researches of Professor Cervello of Palermo on the absorption of medicinal iron in the intestine he took the various compounds already studied and the citrate, the lactate, and the perchloride of iron and subjected them to artificial digestion with albumin in gastric juice and in pancreatic juice and to the double gastric and pancreatic digestion. The results were these: the albuminates, the peptonates, the "ferratin," and the perchloride of iron, mingled with albumin, yield, after digestion, a reaction of organic iron, while the citrate and the lactate preserve their inorganic nature; the transformation takes place if the albumin is mingled with the preparation *in viâ digestionis*, whence may be deduced a confirmation of the old practice of exhibiting the preparations of iron at meals rather than in the fasting stage.

[1] THE LANCET, Oct. 22nd, 1898, p. 1093.

"Cholera in Poultry."

In spite of a "full-dress debate" in which the leading bacteriologists of the sub-Alpine school took part at a largely attended meeting of the Reale Accademia di Medicina the etiology and pathology of this very serious epidemic remain *in statu quo*. There is, in fact, nothing to add to the brief summary of Dr. Mazza's paper and its criticism by Professor Perroncito and Dr. Abba published in THE LANCET on June 3rd. The weighty authority of Dr. Foà, professor of pathological anatomy, was given in favour of the non-choleraic view of the origin and character of the disease, while this may be held to have been balanced by the equally authoritative evidence of Dr. Belfanti of the Milanese Bacteriological Institute who found what he claimed as the cholera bacillus in the infected poultry. In his summing up the President (Professor Bozzolo) recommended further investigation.

June 12th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Health of Sydney.

THE quarterly report of Mr. T. M. Kendall, medical adviser to the Board of Water-supply and Sewerage, Sydney, showed that the population of the metropolitan area had considerably increased—to the extent of 11,800 persons. The number of deaths from all causes was greater than the total for the corresponding quarter of last year, the chief increase being from whooping-cough, measles, typhoid fever, and phthisis. The mortality from diarrhœa had notably diminished. A careful inquiry was made into the circumstances of the 41 cases of fatal typhoid fever and it was found that in 21 cases sewers had not been laid, in two cases sewers had been laid but the houses had not been connected, while 17 cases occurred in insanitary dwellings. No fatal cases occurred in dwellings properly provided with sanitary appliances.

Health of Melbourne.

From the annual report of the medical officer of health of the city of Melbourne it appeared that the total number of deaths for the year was 1196, a considerable increase on the average of the last few years, the rate being 16·9 per 1000. The concurrence of epidemic outbreaks and unprecedentedly high temperature was regarded as the cause of the increased mortality. The chief causes of death were typhoid fever, measles, whooping-cough, diphtheria, croup, and influenza. There was a considerable increase in infantile mortality, chiefly from diarrhœal diseases. As usual, tuberculosis caused the greatest number of deaths.

The Medical Curriculum of the Melbourne University.

The course of study at the Melbourne Medical School has been for many years felt to be inconvenient and unsatisfactory and the Faculty of Medicine has been discussing the subject for some months past, especially with the object of bringing the curriculum more into harmony with the recommendations of the General Medical Council of the United Kingdom. The Faculty has drawn up a report which has been presented to the council of the University. The Faculty finds three chief faults in the present curriculum—(1) the working year is too short, (2) it is overcrowded with systematic lectures, and consequently (3) there is not sufficient time for practical work, particularly clinical work.

The Faculty recommends that the working year be lengthened so as to comprise three terms of ten weeks each. The main examination would thus be placed in the middle of November instead of the middle of October. The supplementary examination, or second trial, would be put in its old place at the beginning of March, lectures being delayed one week for its completion. Final honours would be held simultaneously with the main pass examination, under the same conditions as pass and honours in the earlier years of the curriculum. To lighten the course, materia medica would cease to be a subject of lectures at the University, the practical course at the School of Pharmacy being compressed and improved. Junior anatomy and senior anatomy would

be reduced from three to two lectures a week. Regional and applied anatomy and dissections of the fourth year would be abolished. The routine work of practical pathological histology would be transferred from the fourth year to the third. Therapeutics, dietetics and hygiene, obstetrics and diseases of women would extend over two terms instead of three; medicine and surgery would be one year's courses instead of two; forensic medicine lectures would be reduced to one lecture instead of three lectures a week. But better practical teaching would be aimed at in all subjects. Thus the hospital work of the second year would be reduced to two terms and preceded by a general anatomical excursus. Special tutorial instruction in elementary surgery and elementary medicine would be required during two terms in the second and third years respectively. Practical demonstrations in therapeutics, dietetics, and hygiene would occupy one term; practical gynæcology would be compulsory; an attempt would be made to constitute a course of practical demonstrations in forensic medicine; and partly optional classes would be established in diseases of children, diseases of the eye, diseases of the skin, and mental diseases. The Faculty finds that under existing regulations the number of Bachelors of Medicine and Surgery who proceed to higher degrees is extremely small. The conditions imposed on candidates for M.D. are very rigid, very troublesome, without a corresponding amount of efficiency. The Faculty advises a complete alteration in the requirements for the degree of Doctor of Medicine and a modification of those for the degree of Master of Surgery. For the Doctorate it recommends a thesis in any subject of the medical curriculum with an examination in clinical medicine, such examination being dispensed with when the thesis is of great merit and originality. For the Mastership it suggests the elimination of logic, the simplification of the examination in surgery (without any reduction in standard), and the grouping of surgical anatomy and pathology into one subject, so that excellence on one side would atone for some degree of weakness on the other. In the clinical examinations students of special departments would have certain privileges.

The proposals of the Faculty were sharply criticised in the Council, objection being taken that too much time and attention were given to biology and physics in the first year and that the final year was still too much occupied with systematic lectures. After discussion the Council accepted the proposed curriculum, subject to the consideration of the details of the science subjects of the first year. The senate will now have to deal with the matter and further opposition to the Faculty's proposals is anticipated.

The Sydney Medical School.

The April number of the *Australasian Medical Gazette* contains an editorial article on the Sydney Medical School in which attention is drawn to the overcrowding of the profession by locally educated men and the question is asked, "What useful contributions have been made by the professorial staff of the Medical School to the advancement of medical science? What have we to show for the £80,000 spent on the Medical School?" and the reply is "Nothing whatever—but the overcrowding of the profession and the impoverishment of the majority of efficient and hard-working medical practitioners." The professorial staff will probably reply to this attack in suitable fashion, but it may be pointed out that a good deal of original work of value has been done in the Sydney Medical School by Dr. Anderson Stuart, Dr. C. J. Martin, Dr. Wilson, and others, and that the burden of teaching under the present conditions is too great to allow leisure for much original research.

Dispute at the Yarra Bend Hospital for the Insane, Melbourne.

The members of the Public Service Board of Victoria have been holding an inquiry into certain charges laid by the matron of the Yarra Bend Hospital for the Insane against the medical superintendent, Mr. W. L. Watkins, who had been suspended from duty pending the board's inquiry. The charges were: (1) assaulting the matron and (2) want of tact and temper in carrying out his duties. The alleged assault consisted in pushing the matron out of a ward after she had refused to leave when so ordered by Mr. Watkins. The evidence disclosed that the relations between the matron and the medical superintendent had not been satisfactory for some time past. The board considered the charges proved and as a punishment reduced Mr. Watkins's salary from £850 to £820 a year. The board also held that the matron had been guilty of insubordination and insulting conduct and as she was over 60 years of age advised that she should be retired from the public service.

Hospital Intelligence.

The annual report (the nineteenth) of the Sydney Hospital for Sick Children showed that during the past year 385 patients had been admitted, making, with the 44 remaining from the previous year, a total of 429 patients under treatment. Of this number 240 were discharged cured, 66 were relieved, 33 were discharged unrelieved, 50 died, and on Dec. 31st, 1898, there were 40 remaining in the hospital. 151 had been admitted to the diphtheria cottage, making, with the five remaining from the previous year, a total of 156 patients under treatment. Of these 125 were discharged cured, 26 died, and on Dec. 31st there were five remaining in the wards. There had been 10,885 attendances on 4082 out-patients. The death-rate in the general hospital during the year was 9 per cent., a slight reduction on the previous year's rate of 9·88 per cent. In the diphtheria wards the death-rate was 17·2 per cent., as compared with a rate of 18·78 per cent. for the previous year. The Government propose to remove the Diphtheria Hospital (a sort of offshoot from the Children's Hospital) from the Glebe. It is proposed to erect a sanatorium and hospital for infectious diseases on a site of 40 acres at Kensington. A deputation from the staff of St. Vincent's Hospital, Sydney, waited on the Colonial Secretary recently to ask for a grant of £2000 to build a new operating theatre. The hospital did not receive the ordinary assistance given to other hospitals. The Minister said that he was thoroughly in sympathy with the request which he would place before his colleagues. At the Sydney Hospital the following gentlemen were re-appointed to their respective positions on the honorary medical staff, viz.:—Dr. Jarvie Hood, physician; Dr. F. W. Hall, assistant physician; Dr. W. H. Goode, surgeon; Dr. H. L. Maitland, assistant surgeon; Dr. Ralph Worrall, gynæcological surgeon; Dr. W. G. Armstrong, assistant gynæcological surgeon; Mr. A. J. Brady, aural surgeon; Dr. W. C. Wilkinson, assistant aural surgeon; Dr. Sydney Jamieson, director of the pathological department; Dr. Gordon MacLeod, assistant ophthalmic surgeon.

Death of Mr. Maurice John O'Connor.

General regret was felt when it was known that Mr. Maurice J. O'Connor had succumbed to an attack of pneumonia in his forty-second year. He was a native of Sydney and entered the Sydney Hospital as a surgeon's apprentice. Later he went to Dublin, where he graduated. On his return he was appointed surgeon to Darlinghurst Gaol, which position he held until quite recently, when he was transferred to Parramatta. The deceased gentleman was for some time senior surgeon at the Sydney Hospital and representative of the staff on the Board of Directors. He was also a member of the Medical Board of New South Wales.

Presentation to Mr. G. A. Syme.

On May 4th between 70 and 80 members of the profession in Melbourne entertained Mr. G. A. Syme, M.S., F.R.C.S. Eng., to supper and made him a presentation of an address and a piece of plate on the occasion of his approaching marriage. Mr. Charles Ryan occupied the chair and spoke in flattering terms of Mr. Syme's high status in the profession and the personal esteem in which he was held.

May 10th.

UNIVERSITY OF CAMBRIDGE.—Mr. W. Chawner, Master of Emmanuel College, has been appointed Vice-Chancellor for the next academical year.—Courses of instruction will be given during the Long Vacation in the departments of pathology, anatomy, and chemistry.—Professor Foster and Dr. D. MacAlister have been appointed electors to the new chair of Agriculture.—Mr. A. E. Shipley of Christ's College has been reappointed Lecturer in the Morphology of Invertebrata.—It is proposed to spend some £600 in increasing the accommodation of the new chemical laboratory for elementary students, whose numbers have increased beyond what was thought probable when it was erected and equipped some years ago.—The Mathematical Tripos is rendered noteworthy this year by the appearance of a "bracket" for the senior wranglership, Birtwistle of Pembroke and Paranjpye of St. John's dividing the highest honours. The latter is the first native of India to attain the distinction.—Dr. Donald MacAlister is appointed a member of the new Board of Agricultural Studies.—At the congregation on June 8th the following medical degrees were conferred: M.D.: A. P. Beddard, M.A., Trinity; G. M. Scott, B.A., Peterhouse; and F. W. Garrad, B.A., Clare. M.B. and B.C.: F. A. Allfrey, B.A., Trinity; E. R. Hunt, B.A., Trinity; H. A. Gaitskell, M.A., Clare; E. P. Sewell, B.A., Pembroke; A. M. Ware, M.A., Pembroke; A. E. Carsberg, B.A., Caius; and H. F. Parker, B.A., Emmanuel. M.B. only: P. R. Lowe, B.A., Jesus. B.C. only: J. H. Kemp, B.A., Clare.—Mr. Timothy Holmes, M.A., F.R.C.S. Eng. and Mr. Clinton T. Dent, M.A., F.R.C.S. Eng., of St. George's Hospital, have in virtue of their contributions to surgery been approved for the degree of Master of Surgery.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, JUNE 8TH.

THE Council met to-day half-an-hour earlier than usual, with the hope that the extra time might enable them to complete the business of the session—a hope which was not fulfilled. The President, Sir WILLIAM TURNER, occupied the chair.

New Member.

The PRESIDENT announced that this morning a communication had been received from the University of Oxford to the effect that Dr. Church had resigned his position as representative of the University and that Dr. Joseph Frank Payne had been appointed in his stead. He was sorry to think that they were going to lose the services of Dr. Church, but they must accept what the University of Oxford had done.

The REGISTRAR then read the official notification of the new appointment and Dr. Payne was introduced to the President and the Council by Sir Dyce Duckworth and took his seat at the table.

The College of Preceptors.

The Council having sat *in camerâ* for about three-quarters of an hour,

Sir JOHN BATTY TUKE moved, Dr. MAC ALISTER seconded, and it was agreed to:

That the letter forwarded with certain documents (Memorandum and Statement) to the President by the Secretary of the College of Preceptors, together with the President's reply thereto read to the Council *in camerâ*, be entered in the minutes of the Council.

The communications were:—

(*a*) LETTER FROM THE COLLEGE OF PRECEPTORS TO THE PRESIDENT.

College of Preceptors, Bloomsbury-square, London, W.C., April 21st, 1899.

To Sir WILLIAM TURNER, President of the General Medical Council.

SIR,—I am directed by the Council of the College of Preceptors to submit to you a statement of the reasons which compel them to protest against the conclusions arrived at in the Report of the Education Committee which was adopted by the General Medical Council at their meeting in November last.

The resolution which was passed by the Medical Council at their meeting in November, 1897, notified that "on and after the first day of January, 1899, no certificate of lower standard than that of the matriculation or entrance and the junior local examinations of the universities of the United Kingdom will be accepted for registration," and in the report of the Education Committee on which this resolution was founded the College of Preceptors' second-class examination (first or second division) was asserted to be of lower standard than the University junior local examinations.

This ruling the Council of the College of Preceptors found it impossible for them to accept without protest and they submitted to the Medical Council in March, 1898, a "Statement respecting the standard of the College of Preceptors' Second Class Examination as compared with that of the University Junior Local Examinations," which showed conclusively by statistics of age and candidates, by statistics of passes and rejections, by the recognition accorded to the certificates by important public bodies, and by other considerations, that their Second Class Examination (1st or 2nd division) was not of inferior standard to that of the University Junior Local Examinations. They further proved that the Medical Council in arriving at their decision had been misled by an entirely inaccurate statement in the report of the Education Committee (November, 1897) to the effect that the University Junior Local Examinations were intended for "students who had at least attained the age of 16 years."

In the report drafted by Dr. MacAlister (at that time a member of the syndicate for the Cambridge local examinations), and adopted by the Medical Council in November last, the facts brought forward in the college "statement" were not impugned. But an indictment was drawn up against the college examination which was based on the following grounds:—

"(1) That an undue proportion of cases of defective general education reported by the professional examining boards had been traced to the College of Preceptors' examination.

"(2) That an inspection of examination papers and of candidates' answers and a consideration of the pass standards had convinced the committee that the College of Preceptors' examination was inferior to the 'standard desired by the Council.'

"(3) That the pass-standards of the College of Preceptors are 'in many respects' inferior to those of the University Junior Locals, the average age of the 'candidates who offer the subjects required by the Medical Council' less, and the proportion of rejections smaller, while the papers are in general of a more elementary character.

"(4) That the opinion of school-masters supported the contention of the drafter of the report."

With regard to (1) it is shown in the accompanying Memorandum (pages 2-4) that the figures on which the conclusions of the report were based are absolutely incorrect, while no account whatever had been taken of the proportion of the reported candidates to the number qualified by the several examinations under consideration.

With regard to (2) it is impossible that the implied and necessary comparison can have been made, as it has been ascertained from the chairman of the Education Committee that no inspection of candidates' answers has been made in the case of the University Local Examinations. The meaning of the expression "standard desired by the Medical Council" is not clear. If the standard is that of an "examination intended for students who had at least attained the age of 16 years," then neither the college second class nor the University Junior Locals conform to the desired standard. But if the expression is only used to indicate the standard adopted by the Medical Council (that of the University Junior Locals) then the college Second Class Examination (1st or 2nd division) has been proved to be equal to the desired standard.

With regard to (3) it is shown in the accompanying Memorandum (page 6) that the categorical statements made by the drafter of the report are contrary to fact. Further, that these statements were made in face of the "full details as to standards, methods, and statistics," which are stated in the report to have been communicated to the Education Committee.

With regard to (4), reasons are given in the Memorandum (pages 7 and 8) why but little importance should be attached to anonymous opinions solicited in the manner indicated, expressed for the most part in a way by no means judicial and contradicted as they are by the carefully considered and publicly expressed opinion of important public bodies.

The council of the college having thus pointed out the serious errors of statement and of fact which are found in the report, confidently appeal to the President of the Medical Council to deal with the matter in such a way as will result in the practical revision of the report and of the conclusions arrived at on incorrect data. It is impossible to suppose that the Medical Council would desire, even in the smallest particular, to act unjustly towards another public body which has stood in responsible and friendly relation with them for more than 16 years, and which has no right of appeal nor opportunity of making its voice heard at the Council on a matter in which its reputation as an examining body is vitally concerned. In view of the facts set out in the Memorandum and especially of those mentioned on page 6 the council of the college venture to hope that you, as President of the Medical Council, may find it possible to refer the question at issue to the whole Council or to a committee so constituted as to ensure an impartial consideration of it.

The Council observe that in the case of professional examinations it is the custom of the Medical Council before publishing a report to submit it for remark to the examining body concerned; and they would point out that if this practice had been followed in the case of the Education Committee's reports for 1897 and 1898 the errors referred to above would have been detected before their publication.

I have the honour to be, Sir, your obedient servant,

C. R. HODGSON, Secretary.

(*b*) ANSWER BY THE PRESIDENT.

No. 10,079. General Council of Medical Education and Registration of the United Kingdom, 299, Oxford-street, London, W., June 8th, 1899.

SIR,—Referring to your letter of April 21st, in which, on behalf of the council of the College of Preceptors, you protest against the conclusions arrived at in the report of the Education Committee which was adopted by the General Medical Council in November last, I have to state that I remitted your letter and the two prints marked respectively "Memorandum" and "Statement" to the chairman of the Education Committee of this Council, with the request that the committee would furnish me during the present session with any observations they might wish to make.

I am now in a position to state that the Education Committee have given careful consideration to your letter and the accompanying prints.

(*a*) With regard to the question which was raised by your council as to the want of correctness in the description of the returns alluded to in Section I., 1, of the Education Committee's report of November last, I would state that when the matter was brought to my notice some months ago I sanctioned the necessary correction to show that the description applied, not only to the returns from the examining boards of the medical services of the navy, army, and India, but also to other examining boards. This correction was made in the report before it appeared in Volume xxxv. of the Minutes.

(*b*) The Education Committee have called my attention to differences between the table of returns printed in your Memorandum and that drawn up by the Registrar of this Council and submitted to the committee. In your table the mode of classification adopted differs from the Registrar's and a large number of cases assignable to obsolete examinations are included as well as, under a special heading, a number of cases not traced. Thus the Registrar's table refers to 48 cases, yours to a total of 84. The Education Committee do not, however, admit that the method of classification adopted by your college is proper, for it purports to relieve the college of all responsibility where it granted partial certificates to defective candidates. The committee also are of opinion that the inclusion of the additional cases either traceable to obsolete examinations, or untraced to any examination, or which possibly may have been overlooked by the Registrar, while it doubtless adds to the completeness of the table, appears to have no bearing on the point in support of which the returns were cited and does not affect the conclusions drawn from them. The committee consider that if the table of your college were taken as the basis of enumeration it would still be apparent that among the examinations now on the list of the Medical Council, that of your college is responsible wholly or partially for nearly one half of all the reported cases, whilst the Junior Local Examinations have not given rise to a single case of complaint. These were the original conclusions arrived at by the committee.

Following the mode of reckoning suggested in the letter of the Dean of your college, the cases of failure, total or partial, assignable to your examination are, the committee state, some 18 out of over 2000, whilst those assignable to the Local Examinations are none out of over 400. The comparison of percentages would thus appear to lead to the same result as that of totals.

(*c*) From confidential communications made by the Universities' authorities conducting these local examinations the committee had the opportunity of inquiring into the standards and methods of

marking and the conclusion come to that the requirements of the local examinations were very much higher than those of the college was not based on the opinion of an individual member of the committee, but on the information submitted to the committee as a whole. The percentage of passes to rejections among candidates who presented themselves at the local examinations of the two universities in the subjects required by this Council was also before the Education Committee and in their judgment bore out the conclusion that the examination of the College of Preceptors was less stringent than those of the universities.

(*d*) The Education Committee have drawn my attention to the manner in which, both in the "Memorandum" and "Statement" of your college, an erroneous interpretation is put upon the expressions which the committee has employed in regard to the age standard of candidates for the Junior Local Examinations. The committee used the age of 16 as marking a well-understood period of school life and stated in previous reports that the examinations they approved were such as were adapted to that age. They have also referred to a paragraph in their report of November, 1896 (vol. xxxiii. of the Council's Minutes, p. 463), in which they divide the examinations into two groups and to another in their report of November, 1897 (Minutes, vol. xxxiv., p. 449), in which they define their view of the status of the examinations which should be recognised as expressing their position and they hold that these paragraphs should be read together.

(*e*) The Education Committee point out that the suggestion that the opinion of teachers should be ascertained on the relative merits of the examinations under consideration came from the College of Preceptors. They are satisfied that the answers received in reply to Dr. MacAlister's circular were fairly elicited and that they are not open to the disparaging comments made in the Memorandum. The names of the teachers and of the schools over which they preside are in the possession of the committee and the expression employed in the Memorandum that their views are the "irresponsible opinions of anonymous individual schoolmasters" is not justified.

(*f*) The Education Committee cannot admit that the College of Preceptors has established its claim to have its Junior Examination recognised as equivalent to the Junior Local Examinations, or that if the College of Preceptors' Second-class Examination ceases to be recognised by this Council, the Junior Locals should also be removed from the Council's list, inasmuch as no complaint regarding the scope and efficiency of the latter has been raised.

(*g*) I would assure the College of Preceptors that neither the Medical Council nor its Education Committee desire, even in the smallest particular, to act unjustly towards the College of Preceptors in the matter of the examinations conducted by them. As regards the remark made in the last paragraph of your letter that in the case of professional examinations the Medical Council, before publishing a report, submits it for observation to the examining body concerned, and that it might have been well if this practice had been followed in the case of the Education Committee's reports for 1897-8, I would point out to you that the submission of the reports on professional examinations to the bodies inspected is required in Section iii., 3, of the Medical Act of 1886, and that there is no provision in that Act which requires, or even suggests, a similar action on the part of the Council in connexion with preliminary examinations.

(*h*) I may take this opportunity of stating that the Medical Council has placed at the disposal of the Education Committee a sum of money to enable that committee during the current year to obtain expert assistance in the examination of the regulations, requirements, standards, &c., as well as the answers and markings of candidates of the several preliminary examinations.

I would further call your attention to the statement in the closing paragraph of the Education Committee's Report of 1898, that should "the authorities of the College of Preceptors see fit to establish a Preliminary Examination of a standard equal or superior to that of the other Junior Examinations recognised by the Council, the committee would be prepared to include such an improved examination in the List." I am, Sirs, yours faithfully,

WILLIAM TURNER,
President of the General Medical Council.

C. R. Hodgson, Esq.

Election of the Executive Committee.

The following members were elected by ballot to form the Executive Committee—viz.: Sir Dyce Duckworth, Mr. Bryant, Mr. Carter, and Dr. Glover for England; Dr. Heron Watson and Sir William Gairdner for Scotland; and Dr. Atthill and Sir Philip Smyly for Ireland. In announcing the result of the ballot the President explained that all the old members had been re-elected.

The Pharmacopœia.

Dr. LEECH brought up the following report from the Pharmacopœia Committee, viz.:—

The Pharmacopœia Committee beg leave to report that 26,500 copies of the British Pharmacopœia of 1898 have been printed and 25,225 of these have passed into circulation, leaving in hand only 1275 copies; it is therefore evident that at an early date a further re-issue will be needed.

The Pharmacopœia Committee note with satisfaction that the Legislatures of Queensland and of Victoria have sanctioned Acts which provide for the adoption of the British Pharmacopœia in Queensland and Victoria respectively.

In accordance with the report of the Pharmacopœia Committee adopted by the Council in November, 1898, the Pharmaceutical Societies of Great Britain and Ireland were invited to appoint representatives to confer with the members of the Pharmacopœia Committee and nominated Mr. C. Ekin, Dr. W. Inglis Clark, and Mr. R. J. Downes to act in this capacity. A conference has been held at which Dr. Leech, Dr. MacAlister, and Dr. Tirard (secretary) met the above-named representatives and discussed numerous points connected with subjects dealt with in the Pharmacopœia.

It is recommended that the Pharmacopœia Committee be allowed to authorise the publication of reports received from experts in pharmacy and pharmaceutical chemistry upon matters deemed worthy of investigation.

The President has addressed a letter to the Lord President of the Privy Council requesting that a report upon the Indian and Colonial Addendum should be forwarded through the Privy Council to the Indian and Colonial Authorities. Communications have been received from the India Office and from the Colonial Office expressing readiness to comply with this request.

The report has been widely circulated, copies having been sent to about 900 medical and pharmaceutical authorities and experts in India and the British colonies.

Valuable criticisms and suggestions have already been received from some of the Indian and colonial medical authorities and also from Surgeon-General G. Bidie (Retd.).

A comprehensive committee has been formed in Canada to consider what additions it is desirable to make to the Addendum in order to adapt the Pharmacopœia to the requirements of the Dominion and a preliminary report has already been received from this body.

After the various communications have been considered by the Pharmacopœia Committee, a draft Indian and Colonial Addendum will be drawn up and submitted for the approval of the Council. But much time must elapse before all the comments can be received and considered and it will probably be found impossible to present the draft Addendum at the November meeting of the Council.

Dr. LEECH, in moving the adoption of the report, said it would be seen that the circulation of the Pharmacopœia was going on in a very satisfactory manner, and he thought the Council was to be congratulated on the fact that the work would be at least no burden on the funds of the Council. There was only one point to which he desired to call attention. The committee had submitted certain questions to experts and they desired to have power to publish their replies without necessarily coming to the Council for sanction. It was considered that there would be considerable advantage in having the replies published at once instead of waiting for another meeting of the Council. He might add that none of the property of the committee was destroyed in the fire at Messrs Spottiswoode's.

The report was at once adopted.

The Finances of the Council.

The following report by the Finance Committee was received and entered in the minutes, viz.:—

The Finance Committee report that the income of the General and Branch Councils for the year ending Dec. 31st, 1898, was £14,629 3*s.* 3*d.* and the expenditure for the same period having been £13,905 10*s.* 2*d.*, there is a surplus of £723 13*s.* 1*d.* From Table A it will be seen that this is chiefly due to the publication of the new Pharmacopœia. From the same table it will also be seen that the fees received by the branch councils again show a slight decrease, for £273 5*s.* less was received from that source in England and £13 2*s.* 6*d.* less in Ireland, while Scotland shows an increase of £172 2*s.* 6*d.*, the total decrease therefore being £114 5*s.* These figures would seem to show that though the fees will probably continue to decrease slightly each year, owing to the increasing stringency of the conditions of qualification, yet the effect of the introduction of the five years' rule has now passed, for the decrease in fees in 1897 was £779 12*s.* 6*d.*

The items of increased expenditure are shown on Table B, and amongst these may be specified the following:—

(*a*) An increase of £1214 8*s.* 2*d.* for General Council fees and of £122 4*s.* 8*d.* for Executive Committee fees, occasioned by the extra session of the Council and the length of its meetings; the Executive Committee also met in July, whereas last year (1897) it did not meet between the May and November sessions.

(*b*) An increase of £2454 13*s.* 2*d.* for the British Pharmacopœia, due to the cost of publishing the new work.

(*c*) An increase of £171 15*s.* 11*d.* in the cost of printing the Medical and Students' Registers, regarding which the Stationery Office writes: "This is the first supply under a new contract, and the charge is higher than usual on account of this office having to pay full printing composition rates. During the currency, however, of the new contract the charge for future editions will be considerably lower."

(*d*) An increase of £223 6*s.* in the inspection of examinations, owing to the scheme regarding the Apothecaries' Hall, Ireland, having come into force.

(*e*) An increase of £138 2*s.* 7*d.* in miscellaneous expenses, occasioned chiefly by the issue of the circular regarding the employment of unqualified assistants and partly also by the extra session of the Council.

On the other hand, decreased expenditure has to be noted:—

(*a*) In salaries, £601 10*s.* 1*d.*

(*b*) In law expenses, £133 17*s.* 11*d.*

Table C shows that the average yearly expenditure of the General and Branch Councils for the past seven years has exceeded the average yearly income by £310 13*s.*

The "percentage rate," which shows what part of the "moneys received by the several branch councils" has, pursuant to Section 13 of the Medical Act, 1858, been paid towards defraying the General Council's expenses, was considerably lower during the past year, having been 71·69, as against 109·89 in 1897, caused by the receipts having been increased by the refunding of the money expended on the British Pharmacopœia in the last few years. The auditor recommends that in future the money spent in the preparation of a Pharmacopœia should not be charged as part of the expenditure of the year, but should be carried forward until the book is published; the violent fluctuations of receipts and expenditure which now take place would thus be avoided and a comparison of the figures, year by year, would be more simple.

With regard to the current year, all the items of increased expenditure may reasonably be expected to show a decrease, some of them to a considerable extent, with the exception of the Inspection of Examinations (the Apothecaries' Hall, Dublin), and the interest payable on the mortgage.

The latter item will be increased on account of the additions to the

building—for which a sum not exceeding £3000 is allowed—and the Sinking Fund, that has been approved of, to pay off the debt to the English Branch Council, will probably cause an additional annual expenditure of about £215.

With regard to the British Pharmacopœia, there will be some payments to be made in connexion with the preparation of the Indian and Colonial Addendum, but these will probably be more than balanced by the sale of the Pharmacopœia itself, for the whole of its preparation having been charged against the first edition all future reprints show a profit of about 4*s.* 6*d.* per copy.

Looking at the matter generally it is unlikely that the Branch Councils will be called upon to increase their contributions at the end of the current year and it is possible that the amounts may even be reduced.

The position, however, of the Irish Branch Council in regard to finance requires careful consideration. Its estimated contribution for the current year is £874 5*s.*, which includes a deficiency in last year's contribution brought forward of £234 3*s.* 11*d.* Its income last year was £702 19*s.* 1*d.* Assuming therefore that the income this year will be approximately the same, there will be a deficiency of £171 5*s.* 11*d.*, which will reduce the assets to £113 3*s.* 11*d.*, and at the end of the year 1900, unless a great alteration takes place, the position will be grave. In 1896 the assets of the Irish Branch were £801 18*s.* 5*d.*; they are now £284 9*s.* 10*d.*, or, in other words, in two years the assets have decreased £517 8*s.* 7*d.*

Table E shows the assets of the three Branch Councils and the Dental Fund at the close of the last three years respectively, from which it will be seen that the English Branch Council has increased by £296 11*s.* 8*d.*, and the Scottish Branch Council by £40 0*s.* 5*d.*, while the Irish Branch Council has decreased by £129 12*s.* 1*d.*, making a total increase of £207. The Dental Fund has decreased by £97 19*s.* 8*d.*

Dental Finance.—Table D shows that the receipts of the Dental Registration Fund for the year ending Dec. 31st, 1898, were £806 14*s.* 2*d.*, and the expenditure being £704 13*s.* 10*d.* is thus £102 0*s.* 4*d.* less than the income.

The Finance Committee add the following special report in regard to the formation of a sinking fund prepared pursuant to the following resolution of the Council adopted on Dec. 1st, 1898:—

That the Council approve of the proposal to form a Sinking Fund for the repayment of the English Branch Council at the end of a term of years of a sum of £25,000, and that the Finance Committee be authorised to obtain from an expert a report to be laid before the Council on the methods of carrying the proposal into effect.

REPORT OF THE ACTUARY OF THE LONDON ASSURANCE CORPORATION.

The English Branch Council have advanced to the General Medical Council the sum of £25,000 for the purchase of a freehold and the erection of a building. That sum, according to the resolution of the Council adopted on Dec. 1*st*, 1898, is to be repaid at the end of a term of years, and I am requested to advise as to methods of such repayment on the basis of that term being one of 50 years.

At present the General Medical Council pays the English Branch the sum of £750 per annum as interest.

Repayment may be effected in any one of three ways:

1. By an annuity arranged between the General Medical Council and the English Branch Council without the intervention of a third party.

An annuity of £971 12*s.* 9*d.* (being only £221 12*s.* 9*d.* more than the amount now payable for interest alone) paid by the General Medical Council to the English Branch Council at the end of each year for fifty years would liquidate the debt with 3 per cent. interest. Under this plan each payment of the annuity includes an instalment of principal as well as interest at 3 per cent. on the outstanding balance of the debt. In the early years, when a large amount of debt is outstanding, the greater part of the annuity is absorbed in interest and but a small amount is available in repayment of principal; but as time goes on a less amount is required for interest and the instalments of principal increase. Careful bookkeeping would be required to distinguish the ever-varying amounts of principal and interest and to guard against the principal being treated by the English Branch Council as income. Were the principal to be inadvertently spent as income, then at the end of 50 years the English Branch Council would find that the £25,000 had vanished.

2. Assurance by annual premiums.

An assurance company, in consideration of a premium of £215 12*s.* 6*d.*, payable at the beginning of each year for 50 years, will guarantee the payment of the sum of £26,000 at the end of 50 years. (The Alliance Company being suggested.)

By this plan no complicated bookkeeping would be required, because the full debt would be repaid by means of the policy in a lump sum at the end of the 50 years.

3. Assurance by single premium.

An assurance company, in consideration of a single premium at the rate of £22 16*s.* 3*d.* per cent., will guarantee the repayment of a sum at the end of 50 years.

Under this plan the sum to be assured would be £32,388 13*s.* 4*d.* so as to provide for the repayment of the premium as well as the debt. The English Branch Council would have to advance the single premium of £7388 13*s.* 4*d.* in addition to the £25,000, bringing up the debt to £32 388 13*s.* 4*d.*, on which the General Medical Council would have to pay as interest to the English Branch Council the annual sum of £221 13*s.* 2*d.*, in addition to the £750 already payable. No complicated bookkeeping would be required.

If the English Branch Council can conveniently find the additional sum of £7388 13*s.* 4*d.* required this plan seems the best. Not only is it the simplest, but a secure investment is found for the £7388 13*s.* 4*d.* at 3 per cent. compound interest for 50 years—a much better return than on Consols. In these days of a falling rate of interest this is an advantage not to be despised. GEORGE KING, Actuary.

7, Royal Exchange, London, E.C., April 5th, 1899.

Mr. BRYANT moved, Sir DYCE DUCKWORTH seconded, and it was agreed to:—

That, in accordance with the recommendation of the auditor, the money spent in the preparation of the British Pharmacopœia should not be charged as part of the expenditure of the year but should be kept as a separate account.

Mr. BRYANT moved:—

That the treasurers be requested to carry out the resolution of the Council as to the formation of a sinking fund by the adoption of the second method mentioned in the report of the London Assurance Corporation—viz., the payment of an annual premium of £215 12*s.* 6*d.* for a period of 50 years.

Mr. Bryant explained that the committee had come to the conclusion that it would not be expedient to diminish the capital of the Council, which at present amounted to about £12,000, by so large a sum as £7388.

Sir DYCE DUCKWORTH seconded the motion and it was agreed to.

Mr. BRYANT, in reference to the drop in the assets of the Irish Branch Council from £801 18*s.* 5*d.* in 1896 to £284 9*s.* 10*d.* in 1898, moved:

That the question of the financial condition of the Irish Branch Council be referred for consideration to the Finance Committee (with power to take legal advice) and report to the General Council.

The PRESIDENT asked if any of the Irish representatives could explain the extraordinary drop in their assets of £517 in two years.

Dr. LOMBE ATTHILL said that the receipts of the Irish Branch Council last year and the year before had not been so good as formerly, owing, he thought, to a considerable percentage of Irish students going to Scotland to obtain their degrees. He had been a member of the General Medical Council for a good many years and when he first entered it the Irish Branch Council had as much as £1000 at its credit, but expenses had been so heavy and the revenue had so decreased that that balance had almost disappeared, and at present they had a balance of only some £200. The General Medical Council might take it that so soon as they got a little money together they would remit, for it was their desire to be as honest as poor men could be. They certainly would pay every shilling that they could.

Sir CHRISTOPHER NIXON said that perhaps properly the Irish Branch Council was represented as an impecunious body, but in answer to the President's question as to why they were in this distress he must say that it was the history of what usually took place when there were any financial relations between England and Ireland. He should venture to suggest that the question should be dealt with by the committee which it was to be proposed should consider amendments of the Medical Acts.

Sir PHILIP SMYLY pointed out that the Irish Branch Council had no power of increasing its income from registration, but he did not believe that the revenue of that Council would diminish very much more. On the contrary, he hoped—and he did not think it was a hope without some good ground—that the funds of the Irish Branch Council would increase.

Sir DYCE DUCKWORTH thought that the history of the Council during the last 15 years explained the expenditure. What he wanted to know was why such a large number of Irish students should go to Scotland to seek a diploma.

Sir CHRISTOPHER NIXON: The education is cheaper and the examinations are easier to pass.

Dr. MCVAIL said that that was not so.

The recommendation was adopted.

Mr. BRYANT next moved:

That the other portions of the Finance Report be approved and adopted.

In answer to Mr. HORSLEY Mr. BRYANT stated that the Council had not paid the lawyers' accounts for the year 1898.

The REGISTRAR explained that the Council was always a year behind in the payment of the accounts of their legal advisers.

Mr. HORSLEY thought that that fact ought to be borne on the face of the accounts.

The motion was agreed to and the report of the Finance Committee, with its several recommendations, was passed.

The Penal Cases Committee.

The PRESIDENT announced that the result of the ballot for the election of the Penal Cases Committee was that the four representatives for England were Mr. Bryant, Mr. Brudenell Carter, Dr. Glover, and Mr. Horsley: and that the two Scotch representatives were Dr. Heron Watson and Dr. Bruce. As to the Irish representation on the committee Sir William Thomson was distinctly elected, but there was a tie in the voting as respects Dr. Lombe Atthill and Sir Christopher Nixon.

Dr. LOMBE ATTHILL: I wish that Sir Christopher Nixon should be the member of this committee.

Sir CHRISTOPHER NIXON: I should like that Dr. Atthill would undertake the duty.

The PRESIDENT: As Dr. Atthill spoke first, Sir Christopher, I shall add your name to the committee.

The committee accordingly is composed as follows: for England—Mr. Bryant, Mr. Carter, Dr. Glover, and Mr. Horsley; for Scotland—Dr. Heron Watson and Dr. Bruce; for Ireland—Sir William Thomson and Sir Christopher Nixon.

Students' Registration Committee.

Sir DYCE DUCKWORTH submitted a report from the Students' Registration Committee on exceptional cases which they had considered and dealt with. He moved that the report be entered on the minutes.

Dr. MACALISTER seconded the motion, which was agreed to.

Reciprocity of Medical Practice.

The Council resumed the consideration of communications from the Privy Council Office in regard to the practice of Italian medical practitioners in this country and the question of reciprocity in regard to which the General Medical Council on May 31st, 1899, resolved:—

That it be remitted to Mr. Muir Mackenzi o advise the Council as to whether, under Section 17 of the Medical Act of 1886, the privileges to foreign practitioners can be restricted to the recognition of practice by them amongst their fellow-countrymen only who may be resident in this country.

On this subject the following opinion has now been received:—

The question on which, as I understand, my advice is asked is whether under Section 17 of the Medical Act, 1886, the privileges accorded to foreign practitioners under Part 2 of the Medical Act, 1886, can be restricted to the recognition of practice by them amongst their fellow countrymen only who may be resident in this country.

The 17th Section of the Medical Act, 1886, provides, as regards a foreign country, that Her Majesty may by Order in Council declare that Part 2 of the Act shall be deemed on and after a day to be named in the Order (which in the Act is called "the prescribed day") to apply to a foreign country which in the opinion of Her Majesty affords to the registered medical practitioners of the United Kingdom such privileges of practising in the foreign country as to Her Majesty may seem just.

The effect of the section is that on such an Order being made by Her Majesty Part 2 of the Act becomes applicable to the practitioners of the foreign country.

The effect of the application of Part 2 of the Act to the foreign country is that by Section 12 of the Act a person who satisfies the Registrar that he holds a recognised medical diploma of the foreign country and satisfies the other conditions contained in Section 12 is entitled to be registered in the list of foreign practitioners in the Medical Register.

The effect of Sections 6 and 14 of the Medical Act of 1886 is that every person who becomes registered as a foreign practitioner becomes entitled to practise medicine, surgery, and midwifery in the United Kingdom and British Dominions.

There is no express provision in Section 17 or in any other provision of the Medical Act, 1886, which empowers Her Majesty, by the Order in Council which applies the Act to a foreign State, to limit the right of the foreign practitioners who by virtue of the Order in Council and the Act become entitled to be registered.

In the absence of any express power to impose such a restriction as is suggested by the question put to me my opinion is that no such restriction could be imposed by an Order in Council made under Section 17.

If Her Majesty is advised that a foreign country affords to the registered practitioners of the United Kingdom such privileges of practice as Her Majesty thinks just, Her Majesty can make an Order applying Part 2 of the Act to that foreign country, but upon such an Order being made the practitioners of the foreign country who satisfy the requirements of the Act will be entitled to the full privileges which the Act confers.

My opinion, therefore, to the question submitted to me is that the privileges to foreign practitioners cannot be restricted in the manner indicated in the question.

M. MUIR MACKENZIE.

4, Temple-gardens, E.C., June 7th, 1899.

As Mr. Muir Mackenzie was not in attendance Dr. MCVAIL moved that the case should not go on. He did not think it was right to proceed while Mr. Muir Mackenzie was absent. It was quite unfair to Mr. Muir Mackenzie to go into the case in his absence as it was also unfair to any public interest involved.

Dr. HECTOR CAMERON agreed.

Dr. GLOVER refused to adjourn consideration of the case on the ground put forward. If Mr. Mackenzie was not present that was his misfortune, not his fault.

On a division five members voted for the motion proposed by Dr. MCVAIL and 11 against it.

The motion was rejected and the opinion of Mr. Muir Mackenzie was entered on the minutes.

The Case of the late Mr. H. K. Hunter.

Mr. HORSLEY asked leave to draw attention to the proceedings taken in the name of the Council against the late Mr. H. K. Hunter.

A narrative, extending to 43 pages of 8vo print, drawn up by direction of the President for the information of members of the Council, was circulated.

The PRESIDENT moved that this narrative be received and entered on the minutes and that no other name but that of Mr. Hunter be mentioned therein.

This motion was carried.

The PRESIDENT then said that his wish had been to give a correct narrative of the case and that perhaps accounted for the somewhat unusual dimensions to which the print had gone.

Mr. HORSLEY said that his object in drawing attention to this case was to exculpate the General Medical Council from the charges which had been made against it outside the four walls of their chamber to the effect that they had prosecuted a registered medical practitioner for calling himself a physician. He went on to say that the Council had not, as they viewed the case, prosecuted a registered medical practitioner but a man whom they were given to understand was an unregistered medical practitioner, using a bogus American M.D. degree.

Mr. BROWN believed that the members of the General Medical Council were not aware of the full facts of the case when the proceedings were taken against Mr. Hunter. He certainly was of opinion that it should be recorded that the prosecution of Mr. Hunter was not sanctioned by the Council in its capacity of a Council.

Dr. GLOVER, as a member of the Penal Cases Committee as well as a member of the General Medical Council, wished to express his belief that if this case had not been made a test case more assistance would have been given to Mrs. Hunter and he hoped that the fund which was being raised for her would be largely augmented.

After some discussion Dr. GLOVER said that the case had been proceeded with in a friendly spirit and without any animus. It was a test case and not a personal one.

The PRESIDENT defended Mr. Muir Mackenzie's action.

The subject dropped.

Reciprocity of Medical Practice.

On Dr. MACALISTER rising to move the ninth order on the paper,

Dr. MCVAIL said: What about the eighth order? (Mr. Muir Mackenzie's opinion on reciprocity with the practitioners of Italy.)

Dr. MACALISTER said that that opinion had already been entered on the minutes and he now proposed that the Executive Committee should consider it along with the memorandum on reciprocity.

Mr. BRYANT seconded.

Dr. MCVAIL said that he was not satisfied with that explanation of the subject. Now that they had got Mr. Muir Mackenzie's opinion he did not see that they could go on either to a discussion or division on the subject.

Dr. MACALISTER said it was impossible for the United States of America to enter into reciprocity and as a matter of fact it was impossible for Canada to enter into a reciprocity.

The Council adjourned.

FRIDAY, JUNE 9TH.

The Council held its final sitting to-day when there was a very much reduced attendance of members. Sir WILLIAM TURNER occupied the chair.

Reciprocity of Medical Practice.

The Council proceeded with the consideration of the following motion by Dr. MACALISTER, seconded by Mr. BRYANT:—

That the opinion of Mr. Muir Mackenzie in regard to the following resolution, adopted by the General Council on June 8th, 1899—"That it be remitted to Mr. Muir Mackenzie to advise the Council as to whether, under Section 17 of the Medical Act of 1886, the privileges to foreign practitioners can be restricted to the recognition of practice by them amongst their fellow countrymen only who may be resident in this country"—be referred to the Executive Committee for consideration in connexion with the memorandum on reciprocity.

Dr. MCVAIL asked the President if he had any information as to whether the Privy Council had taken any action in consequence of the letter sent to the Privy Council by the Executive Committee regarding recognition of Italian medical graduates in this country.

The PRESIDENT replied that the information he had was that the Privy Council had as yet not taken any action. Obviously the Privy Council had waited until the meeting of the Council.

Dr. MCVAIL then moved a long motion, the effect of which was that it be remitted to the Executive Committee to represent to the Privy Council that in reply to the question put by the Council Mr. Muir Mackenzie gave the

answer set forth in the minutes and that the Executive Committee be requested in a covering letter to the Privy Council to indicate the difficulties which surround the granting of recognition to medical graduates of foreign countries over whose curricula of study and professional examinations the General Medical Council can exercise no supervision, and that in the event of any further official communications bearing on the subject being received the Executive Committee be requested to consider whether the principle of a limited recognition of practice already established by Section 6 of the Act of 1859 might not be extended by a short enactment. Dr. McVail explained that the extension in his mind was that of allowing Italian practitioners to attend Italians in this country. What had been asked by British practitioners had been the privilege of attending British residents in Italy.

Mr. TOMES seconded the motion.

Mr. HORSLEY suggested that the motion should stop at the word "supervision" because the President of the Privy Council had told them that he would not contemplate a short enactment of this kind, but only a general amendment covering the whole subject.

Dr. MCVAIL said he was quite prepared to accept this suggestion.

Dr. GLOVER thought the Council should indicate to the Privy Council how far they were prepared to go.

Dr. HECTOR CAMERON pointed out that British medical men practising in Italy had a large number of Americans among their patients and that probably they would not be content with recognition of practice among British subjects—they would probably wish it extended to English-speaking people.

Dr. MCVAIL said he was strongly impressed with the idea that unless they had proper inspection of the whole machinery of education and examination they should not give recognition in this country. Of course, if the Privy Council chose to recognise foreign or colonial diplomas without the advice of the Council the responsibility would lie with the Privy Council.

Dr. MACALISTER said he was anxious that the Privy Council should not think the Council were inconsistent and as a matter of fact the Council were recognising these diplomas—they were doing it every day by putting people on the Colonial Register.

After some further discussion the motion with all the words after "supervision" deleted was agreed to.

The Midwives Question.

The REGISTRAR (Mr. Allen) read the following communication from the Privy Council Office in answer to a communication from the President of the General Medical Council forwarding a draft report adopted by the Midwives Bill Conference Committee:—

The Clerk of the Council,
Privy Council Office, London, S.W.,
June 6th, 1899.

Sir,—Adverting to your letter of April 10th last on the subject of the Midwives Bill now before Parliament I am directed by the Lord President to inform you that in the result of further communications with the promoters of the Bill they are willing to meet the views expressed in the first paragraph of the report of the committee of the General Medical Council by the addition to Clause 3 (4) of the words: "or unless she is registered under the Medical Acts to attend cases of abnormality or disease in connexion with parturition."

His Grace is advised that, as a matter of drafting, this form of amendment is preferable to the change in the definition of midwife which found favour with your committee.

The definition in Clause 2 of the Bill is merely a description, and would not appear to be an inaccurate one, whereas the proper way in which to negative any suggestion that the Bill confers on women not registered under the Medical Acts a statutory right to attend cases of abnormality or disease in connexion with parturition is by making an addition to Clause 3, and it would appear that the words suggested by the promoters of the Bill are sufficient to prevent any inference that the Bill would interfere with the principle or policy of the Medical Acts.

I am to add that this concession seems sufficient to meet the necessities of the case and that in respect to almost all the other points enumerated in your committee's report the promoters of the Bill are in substantial agreement with the suggestions that have been made for its amendment, but the Lord President did not see his way to press upon their acceptance the proposals of the committee relative to the constitution of the Midwives Board.

I am, Sir, your obedient servant,
A. W. FITZROY.

Sir William Turner, F.R.S.,
President of the General Medical Council.

Sir RICHARD THORNE said that the committee were strongly impressed that the licensed midwife should be confined to natural labours. That, they contended, should appear in the definition of the term "midwife" in the Bill, but the Privy Council Office have had it suggested to them that it would be very much better to make a definite disability on the part of the midwife to attend any case of abnormal labour or any case of disease in connexion with parturition and this letter said: "His Grace is advised that, as a matter of drafting, this form of amendment is preferable to the change in the definition of midwife which found favour with your committee." He showed this letter to every member of the committee and they agreed that it would be better to accept the decision of the Privy Council in the matter, because, after all, it was a matter of the drafting of the Bill and the Privy Council had access to the Government draftsman, and the President agreed that they should accept the opinion of the Privy Council as to the best way of attaining this end. This was to have come forward yesterday, but owing to the large amount of business to be performed the President last night drafted a letter expressing the view of the committee, which was to accept the opinion of the Privy Council in the matter, and that letter had actually been sent to the Privy Council Office. In the name of the Council the President had accepted the judgment of the Privy Council. Just one alteration had been suggested. It was pointed out that the term "abnormality" often carried a technical sense and it was suggested that the words should run that midwives should be prohibited from "attending cases of abnormal labour."

The terms of the President's letter were read to the Council.

Mr. BROWN said he desired to take the opportunity of saying that he did not approve of any legislation of this kind for midwives.

Dental Penal Cases.

The recommendation from the Dental Committee as to adopting a new Standing Order for regulating procedure in dental penal cases was brought up again and adopted by the Council.

Proposed Amendment of the Medical Acts.

Dr. GLOVER moved:

That a committee of the General Medical Council be appointed to consider necessary amendments of the Medical Acts.

He said that among subjects calling for attention were the uncertainty of restoration to the Register, the inequality of the powers of the bodies in the matter of dealing with their graduates and licentiates, the amendment of Section 40 of the Act, the inspection of the examinations for the higher qualifications, the question of reciprocity (for which, he said, some solution must be found, because at this time of day it was impossible to deny reciprocity between nations in respect of equally-educated men), and the question of the constitution of the Council itself. He could not help thinking that they had had sufficiently long relations with the present Government to have borne in upon them the conviction that they were a very moderate and reasonable set of men and that any proposals they might make to them were entitled to their best and most earnest consideration.

Sir WILLIAM THOMSON, in the absence of Dr. Bruce, seconded the motion.

Sir CHRISTOPHER NIXON said he cordially supported the motion. For his part he would like to see the law declare that no one should be allowed to practise unless he had been registered. Another point he would like to see attention given to was the financial position of the Council, and another was the right to use medical titles.

Sir JOHN BATTY TUKE said that from the point of view of the Education Committee it would be desirable to have an amendment of the law with regard to the registration of students. It was specially laid down in the Act that the Council should obtain information as to the ages at which certain courses of study and examination took place, and the Council had no machinery for the purpose except what they had constructed for themselves. It seemed to him that they should be able to carry out the behests of the Act as it stood at present by the establishing of a right to register students and to determine the conditions under which they were to be registered.

The PRESIDENT said he would like to call the attention of the Council to the interim reports which he had issued as to the disciplinary powers and his efforts to get the various medical authorities into line and to agree to an Act which would carry out certain very important amendments and would give powers to the bodies to do what many of them could not do at present—namely, cancel or revoke the diplomas they had conferred. Although in the first stage of the negotiations various objections had been raised, he hoped

that in the second stage the bodies would all come into line. Another point in this connexion was the disposition of the penalties paid in the metropolitan police districts. If he could get these agreed to and carried undoubtedly important reforms would be instituted, but from what had fallen from various speakers in this debate it seemed to him that the intention was to get, not a reform of the existing Act, but a new Medical Act, altogether. Of course, if the Council were of opinion that the report of such a committee as was proposed would enable them to get that he made no objection, but he had grave doubts whether it would enable them. He ventured to make the suggestion that they should not be precipitate in this matter: let them wait until next November and see what answers the bodies gave to him upon the clauses which would be sent to them. He felt sure that a little delay would not be disadvantageous.

Dr. MACALISTER said there was a consideration against this roving commission that the Council were an administrative and judicial body, and if they began from within to propose practically the reconstruction of the Act under which their powers were given they must immensely weaken what they did under the existing law, and the moral effect of their action would be vastly weakened. He thought that amendments of the Medical Acts would come far better from outside bodies and what they proposed would surely come before the Council for their consideration and approval. If the Council initiated legislation in a general and wholesale way he was sure that the Privy Council would adopt a different attitude from that which they had, so to speak, succeeded in winning from them and he was afraid it would undermine their power.

Mr. BROWN said that his view was that from no quarter could legislative proposals come more appropriately than from the Council which from long experience of their working knew well the shortcomings of the existing Medical Acts, and he would point out to the President that unless they were ready with a Bill in November next they could not expect an Act in 1900.

The PRESIDENT: You may add a good many years to that, Mr. Brown.

Mr. CARTER said that the proper people to introduce amendments to the Medical Acts were members of the legislature and they had the advantage of having in the House of Commons members of their own profession—men of great attainments, accustomed to deal with public affairs, and men of sound sense and discretion. If members of the profession were anxious to reform the Medical Acts their first step should be to approach these gentlemen and to endeavour to enlist their assistance in the undertaking. Any Bill that these gentlemen might be induced to promote or back would unquestionably be referred to the Council and he had no doubt that the supporters of the Bill would value the advice they might be able to give them, but for the Council to engage in a perfectly indefinite inquiry as to what some people thought necessary and other people might think exceedingly unnecessary would be in his opinion a wasting of time.

Dr. GLOVER, replying on the debate, pointed out that the hands of the Council would not be tied by anything the proposed committee might report, because it would always be open to the Council to reject the report or any part of it to which they took exception. It was a most astounding doctrine which Mr. Carter had laid down that the persons to bring about, to carry through, and to ask for the amendment of the Medical Acts were the three or four medical men who happened to be members of the House of Commons. As regards one or two of these gentlemen he had heard it stated in the House of Commons that they had sunk the doctor in the politician, but surely Mr. Carter did not seriously mean that they were to depend for important legislation of this kind upon certain medical men who chanced to be members of the House of Commons.

A vote was then taken, when eight voted for the motion, 10 voted against it, three members did not vote, and nine members were absent. The motion was accordingly lost.

Dr. MCVAIL said that the result of the voting showed how wrong it was to take a motion of this kind upon the last day of a long session. It ought to have been taken early in the session and a considerable part of a day given to its discussion.

The Council and the Profession.

Mr. HORSLEY moved:—

That all memorials addressed to the General Medical Council be received and laid upon the table.

He thought that if the Council's procedure was in accordance with what he proposed nobody would have any cause of complaint.

Dr. MACALISTER and the PRESIDENT pointed out that any memorials sent to the General Medical Council required in the first instance to be inspected by the Business Committee or the Executive Committee and that if they were of a suitable character they might then proceed for the consideration of the Council.

Some discussion ensued and it was agreed:—

That, subject to Standing Order XVI., all petitions addressed to the General Medical Council immediately before or during the session of the Council be laid upon the table.

The Council's Proceedings.

Mr. HORSLEY moved:—

That a shorthand report should be made of all sittings of the Council and Executive Committee.

He thought that they would be only acting in conformity with other public bodies if they had such reports as he wanted of their proceedings.

Mr. BROWN seconded the motion.

On a division the motion was rejected.

The London Apothecaries' Society.

On the motion of Mr. CARTER, seconded by Mr. BRYANT, the Council resolved:—

That Mr. Charles Stonham, F.R.C.S., surgeon to and lecturer at the Westminster Hospital, be appointed an Assistant Examiner in Surgery to the Society of Apothecaries for a period of five years, in the room of Mr. Bernard Pitts, retiring by rotation.

The Dublin Apothecaries' Hall.

As the appointment of assistant examiners in surgery at the Apothecaries' Hall, Dublin, expired on May 31st it was agreed that these assistant examiners should be reappointed.

Illegal Certificates in Midwifery.

The Council proceeded to consider the following notices of business: (*a*) Adjourned consideration of the report by the Executive Committee (received and entered in the minutes of May 31st) on memorials on the subject of illegal certificates of proficiency in departments of medicine, surgery, or midwifery. (*b*) To receive a memorial, dated March 30th, signed by 550 persons, on the subject of the alleged "improper conduct" of registered practitioners by participation in the issue to persons not medically registered of diplomas or certificates testifying or implying, or which may be used to testify or imply, proficiency in departments of medicine, surgery, or midwifery.

Mr. BROWN moved that the whole of the memorials be referred to the Special Committee on the subject appointed earlier in the session. He wished to impress upon the Council that the issues involved in these memorials were very important and in his view the Council could not give them at the end of their session that adequate discussion which was necessary. The memorialists were men who held the higher positions in the profession and he thought the Council should look upon the memorials, or petitions if they might be called by the latter name, as so important that they should not be thrown aside as of no account.

Mr. HORSLEY was of the opinion that the Council was not in a position at that moment to fully consider the matter and he thought that it would be very much better if they postponed the whole business to the November session.

Dr. MCVAIL said it seemed to him that the Executive Committee in the report presented by them to the Council on May 31st had gone as far as it was possible to go, and he could not see that they could get anything more from a special committee.

Dr. MACALISTER considered that it would be most unwise to proceed further than the Executive Committee had gone in their finding.

Mr. BRUDENELL CARTER wished to point out to the Council that there was nothing new in the matter of advertising by spectacle-makers. The only difference was that those who advertised now professed to be "certified" or "certificated." This whole business seemed to him to be utterly outside the province of the Council and he was not disposed to waste more time in considering whether spectacle-makers knew or did not know the difference between a concave and a convex lens.

On the motion of Mr. BRYANT, seconded by Dr. HERON WATSON, the Council adopted the following resolution submitted by the Executive Committee:—

That, as regards the issue of certificates in midwifery referred to in the memorials, the Council is of opinion that as a Midwives Bill is now

before Parliament, it should at present refrain from taking any action. As regards the certificates granted to spectacle-makers the Council exercises no jurisdiction over such opticians, but will be prepared to consider any properly substantiated charge of improper conduct made against a registered medical practitioner with reference to this subject.

Mr. BROWN's amendment was rejected by 12 votes to five, nine members being absent.

The Council Chamber.

Dr. MCVAIL, seconded by Dr. HERON WATSON, moved:—

That Mr. Bryant, Mr. Teale, and Sir Richard Thorne be appointed a committee with full powers to carry out, before the next session of the Council, whatever improvements they may deem to be practicable and desirable for the better ventilation of the Council room, and if possible to improve the press accommodation.

He (Dr. McVail) pointed out that the accommodation which the Council provided for the press was very poor.

The motion was agreed to.

The Midwives Bill Committee.

On the motion of Dr. MACALISTER (for Sir RICHARD THORNE), seconded by Mr. BRUDENELL CARTER, it was agreed:

That the committee appointed on Nov. 29th, 1898, for the purpose of watching legislation on the subject of midwives during the present session of Parliament be re-appointed as the Midwives Bill Committee and be instructed to watch any further legislative action that may be proposed in the matter.

Medical Aid Associations.

On the motion of Dr. GLOVER, seconded by Mr. BROWN, the following resolutions were agreed to:—

1. That copies of the resolution passed by the Council on June 6th on the subject of Medical Aid Associations relative to the formation of a board of conciliation be forwarded by the Registrar to those persons and bodies who have memorialised the Council on the matter and likewise to the representatives of the friendly societies with whom the committee have had conference.
2. That the Committee on Medical Aid Associations be reappointed.

A notice of amendment to these resolutions, of which notice had been given by Dr. McVail, who was to be seconded by Sir John Batty Tuke, was postponed until next November. The notice was in the following terms:—

That the Council shall issue to all registered medical practitioners the following notice: "That the Council will regard as infamous conduct in a professional respect the association of registered practitioners with medical aid associations which systematically canvass and advertise for the purpose of procuring patients to such associations and practitioners."

Companies Act Amendment Bill.

The Council received the following communication from the Lord Chancellor's Office in regard to the representation that the President was requested to make to the Lord Chancellor on May 31st in regard to the Companies Act Amendment Bill:—

House of Lords, S.W., June 5th, 1899.

Sir,—I am directed by the Lord Chancellor to acknowledge the receipt of your letter of the 1st inst. enclosing a report of the Companies Act Amendment Bill Committee and referring to the Companies (Medical Profession) Bill, 1899.

I am, Sir, your obedient servant,

Sir William Turner, M.B., K. MUIR MACKENZIE.
President of the General Medical Council.

Mr. TOMES explained that in order to give effect to the Council's wishes on this subject it had been considered unnecessary to proceed with a special Bill because in the general Bill affecting companies a clause had been inserted to carry out practically what the Council desired.

The PRESIDENT asked Mr. Tomes if the clause in question included the term "medical practitioner."

Mr. TOMES: No; that is to be seen to. I would ask the reappointment of the committee.

Mr. TICHBORNE seconded.

It was agreed to continue the committee.

Dental Education.

At the instance of the Dental Education and Examination Committee a report was presented relative to an Act passed in the colony of Victoria in December last to amend the law relating to dentists. The report, which was signed on behalf of the committee by Mr. BRYANT, the chairman, was as follows:—

The Act is one of some interest. It repeals some of the provisions of the Medical Act, Victoria, 1890, Part II., and is intended to remedy some of the difficulties which had arisen in the working of that Act and especially to confer the power upon the Dental Board of framing a curriculum and prescribing its fulfilment as a condition precedent to admission to examination. (This had previously been done, but it had been declared by the Attorney-General of the colony to have been *ultra vires*.) The practical effect of this enactment is that no person who had commenced his professional education prior to Dec. 20th, 1898, will be subject to these curriculum requirements, so that it will be four years before any curriculum candidates can be examined. Other features of interest in the Act are that it empowers the Dental Board to accept certificates of examination in certain subjects by the University of Melbourne and by other specified affiliated and recognised bodies in lieu of examinations conducted by the board itself.

It recognises registration in the United Kingdom as conferring a right to entry upon the Victorian Colonial Register and accords a more qualified recognition to other foreign degrees for the same purpose.

It deals with the company question by prescribing that no company unless wholly composed of registered dentists shall make use of titles or expressions implying the possession of a qualification to practise, or that practice is actually carried on. It permits executors or trustees to continue the practice of a deceased dentist for two months, but no longer, without the express permission of the Dental Board; and only if the practice is *bond fide* and carried on by a registered dentist.

It contains an apprentice clause, but apprenticeship prior to the passing of the Act merely confers a right to come up for examination, and does not *ipso facto* admit to the Register.

Hence the Act contains clauses which have evidently been drafted with full cognisance of certain of the difficulties which have arisen in the administration of our own Acts.

On the motion of Dr. MACALISTER this report was received and entered on the minutes.

Prevention of Personation.

An elaborate document, which was described as a "draft report" from the Prevention of Personation Committee, was, according to the programme, to be presented to the Council.

Mr. HORSLEY agreed, at the suggestion of the Council, but at the same time in accordance with a notice which he had previously placed on the paper, that the consideration of the said draft report should be postponed till the November session. He also wished the Council to say that in the interval no name should be restored to either the Medical or the Dentists' Register except by direction of the Council or of the Executive Committee under Section 14.

The PRESIDENT thought that they had not the power to do that.

Mr. HORSLEY'S motion for the postponement of the report was agreed to.

Other Dental Business.

The Council received the following report from the Executive Committee on dental business transacted by it since the last session of the Council:—

The Executive Committee report that the following matters on dental business have been considered by them since the last session of the Council:—

(*a*) They approved of the restoration of the names of the undermentioned persons to the Dentists' Registrar, from which they had been erased in conformity with the provisions of Section 12 of the Dentists Act (1878): Francis Boulger and William Julian.

(*b*) They received from the treasurers statements, duly audited, of the receipts and expenditure of the Dental Fund of the General Medical Council for the year ending Dec. 31st, 1898, and directed that a summary thereof should be published in the Medical and Dentists' Registers for 1899 and that it should be laid before both Houses of Parliament.

(*c*) They considered the form of the supplementary notice to be issued to dentists in regard to the subject of the administration of anæsthetics and approved of one which had been drafted by Mr. Muir Mackenzie as follows:—

NOTICE.

Any registered medical practitioner who knowingly and wilfully assists a person who is not registered as a dentist in performing any operation in dental surgery, either by administering anæsthetics or otherwise, will be liable, on proof of the facts, to be dealt with by the General Medical Council as having been guilty of infamous conduct in a professional respect.

(*d*) They accepted the resignation of Sir Henry Pitman, the sole surviving trustee to the Dental Fund, thanked him for his services, and appointed in his place Dr. Church and Mr. Tomes, trustees, who kindly consented to accept the appointment.

(*e*) They received a letter from the Royal College of Surgeons of England in regard to the course of study and examination for licences in dental surgery.

(*f*) They received a communication from the Dental Board of Victoria in regard to the registration of Mr. E. H. C. Bailey in the Colonial List of the Dentists' Register and resolved:—

"That Mr. E. H. C. Bailey and Mr. F. W. Bailey be asked to produce the certificates required by the regulations under which they commenced their studies in proof of their having fulfilled the regulations under which they commenced."

(*g*) They considered and rejected an application for registration under Section 37 of the Dentists Act, 1878.

(*h*) They received from the Colonial Office a copy of an Act of the Legislature of Victoria to amend the law relating to dentists and resolved that it be referred to the Dental Education and Examination Committee.

On the motion of Dr. MACALISTER this report was entered on the minutes, and on the suggestion of Mr. TOMES it was agreed that the notice in regard to the administration of anæsthetics should be appended to any notice to dentists sent out by the Council. In reply to Sir DYCE DUCKWORTH the PRESIDENT said that Dr. Church's resignation of membership of the Council would not interfere with his trusteeship to the Dental Fund.

Education in Wales.

On the motion of Sir JOHN BATTY TUKE the Council agreed

to recognise the senior examinations of the Welsh Intermediate Education Board and also the degree of science of the University of Wales.

Appointment of Committees.

The several committees of the Council were then appointed, the chief alterations being the replacing of Dr. Church by Dr. Payne on the Education Committee and the substitution of the name of Dr. Pye-Smith for that of Dr. Church on the Public Health Committee.

Dr. Leech continues chairman of the Pharmacopœia Committee; Mr. Bryant remains chairman of the Finance Committee; while the President will be *ex-officio* chairman of the Dental Committee.

The Examination Committee will consist of the following members: For England: Sir Dyce Duckworth (chairman), Mr. Bryant, and Mr. Teale; for Scotland: Dr. Heron Watson, Dr Pettigrew, and Dr. McVail; and for Ireland: Dr. Little, Sir William Thomson, and Sir Philip C. Smyly.

The Education Committee is composed of Dr. MacAlister, Dr. Glover, and Dr. Payne for England; Sir John Batty Tuke (chairman), Sir William Gairdner, and Dr. Reid for Scotland; and Dr. Bennett, Sir Christopher Nixon, and Sir William Thomson for Ireland.

The members of the Public Health Committee are—for England: Sir Richard Thorne (chairman), Mr. Teale, and Dr. Pye-Smith; for Scotland: Dr. Hector Cameron, Dr. McVail, and Dr. Bruce; and for Ireland: Dr. Bennett, Sir Philip C. Smyly, and Mr. Tichborne.

The Students' Registration Committee, with Sir Dyce Duckworth as Chairman, was also continued.

Vote of Thanks.

The proceeding of the Council terminated soon after five o'clock. The minutes of the sitting were read and confirmed. Just before separating, however, Dr. GLOVER thought the Council ought to accord to the President a very cordial vote of thanks for the patience with which he had presided during this very prolonged session. Sir CHRISTOPHER NIXON supported this suggestion, which was received with applause by the members present.

The Council rose till November next, the session having lasted for 10 working days, being the longest since the year 1885, when very important business detained Sir Richard Quain and his colleagues of that year for no fewer than 11 days.

Medical News.

VICTORIA UNIVERSITY.—The following degrees have been awarded:—

Degree of Doctor of Science.—A. W. Crossley, Edward Haworth, and Albert Griffiths, Owens College.

Degree of Doctor of Medicine.—* H. E. Annett, University College; and † C. A. Davies, * C. R. Marshall, † T. A. Rothwell, * eter Thompson, and J. D. Windle, Owens College.

* Awarded gold medal. † Awarded mark of commendation.

THE LATE DR. A. B. CHEVES.—Some friends have placed a beautiful stained-glass window in the side chapel of the parish church of Millbrook, Cornwall, as a memorial to the late Dr. Alexander Bruce Cheves. The window consists of three lights and contains the following inscription: "To the Glory of God and in Memory of Alexander Bruce Cheves, M.D., 1899."

MANY of our readers will be aware of the recent and regretted death of Mr. James Arnold, senior partner in the well-known firm of surgical instrument makers, Messrs. Arnold and Sons. Owing to an advertisement in our columns an impression has been given that the business of the firm would be for sale. We have been asked by the two remaining partners in the firm—Messrs. J. E. and E. R. Arnold, sons of the deceased—to state that they will continue to conduct the business as heretofore.

FREEMASONRY.—*Rahere Lodge, No. 2546.*—The installation meeting of the Rahere Lodge was held in the great hall at St. Bartholomew's Hospital, E.C., on Tuesday, June 13th, in the presence of a large and brilliant assembly. Dr. G. N. O. Slater, Dr. Tunnicliffe, and Dr. H. W. C. Austen were initiated into freemasonry, and W. Bro. Burns, the retiring master, then installed Bro. Reece as his successor. Bro. Reece appointed Bros. Gripper, Abraham, and Godson to the principal offices in the Lodge. The report of the audit committee was received and adopted and showed that the Lodge was in a highly prosperous condition financially. The brethren and their guests to the number of 80 afterwards dined together at the Restaurant Frascati.

VACCINATION GRANT.—Mr. Edward Knowles, M.D. Aberd., of Higher Tranmere, Birkenhead, has been awarded the Government grant for efficient vaccination.

BROCKWELL HALL.—Messrs. Burroughs, Wellcome, and Co. have acquired Brockwell Hall, Herne-hill, and an extensive paddock adjoining it. The fine old mansion is now undergoing reconstruction to adapt it for use as physiological research laboratories.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.—The annual dinner of this institution was held on June 7th at the Hotel Cecil, Dr. W. R. Smith, President, being in the chair. Among those present were the Archbishop of Canterbury, Lord Lister, Sir William Turner, Sir Michael Foster, Sir William Broadbent, Sir James Crichton Browne, and Sir Dyce Duckworth. The chairman proposed the health of Lord Lister to whom the Institute had awarded the Harben Medal for the year. Lord Lister in an appropriate reply referred to the enormous development in recent years of the study of bacteriology and the effect of this study upon preventive medicine. The Archbishop of Canterbury proposed the toast of "Prosperity to the Institute," to which Dr. Smith responded in suitable terms.

NATIONAL SOCIETY FOR EMPLOYMENT OF EPILEPTICS.—The annual meeting of the governors of this society was held on June 12th at 12, Buckingham-street, Strand, the chair being taken by Mr. E. Montefiore Micholls. The chairman, in his introductory speech, referred to the forthcoming opening by the Duke and Duchess of York of four new homes at the colony established by the society at Chalfont. Two of these homes were intended for children, and the committee looked to this extension of the work with the most confident anticipations of good results. It was hoped that ere long the recommendations made by the recent committee of the Education Department would be carried into effect by legislation so as to enable school boards throughout the country to send epileptic children to such homes. The work which the society had in hand was of national importance; it was too vast to be wholly accomplished by the unaided resources of voluntary charity, and it could best be performed by a system of coöperation between school boards and other public authorities on the one hand and voluntary agencies such as that society on the other. This view had been fully recognised by the departmental committee to which he had referred. Another extension about to be made in the society's work would take the form of a home for convalescent and other temporary cases, an offer of £2500 for this purpose having been made by a gentleman whose name he was not at liberty to divulge. Epileptics were rigorously excluded from the ordinary convalescent homes, and the need for a special home to receive such cases had long been felt. The progress of the society during its brief existence was probably almost without a parallel amongst charitable institutions. Its success was to be attributed in the first place to the merits of the cause and to the full though tardy awakening of the public conscience to a feeling that the former neglect of epileptics must no longer be permitted. To the personal interest taken in the movement by the Duke of York as president the society owed much and much also to the heartiness and unanimity with which it had been supported by the press. The annual reports of the executive committee and the honorary medical staff were then received and adopted. The first-named report showed that notwithstanding the growth of the colony its accommodation was still quite incommensurate with the need. The urgent necessity for further extension was pointed out and the committee urged very forcibly that such extension could be made without causing any difficulty as to the future maintenance of the institution. It appeared from the report that owing to the press of applications candidates had to wait on the average two years for admission, and during that time the disease naturally became confirmed and aggravated. In spite of this obstacle the progress made by the colonists, as shown by the report of the honorary medical staff, was regarded as equalling the most sanguine expectations.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, JUNE 8TH.

The Pasteur Institute in India.

SIR WILLIAM WEDDERBURN asked the Secretary of State for India whether his attention had been drawn to the proceedings of the Central Committee of the Pasteur Institute, held on April 15th last at the office of the Director-General, Indian Medical Service, at Simla (the Director-General himself in the chair), when it was proposed to ask the Government to make a grant for a Pasteur Institute and to place it under a Government medical officer; whether this committee had been formed with the sanction of Government; and whether it was proposed to grant them the assistance asked for.—Lord GEORGE HAMILTON replied: I have seen a newspaper report of the meeting of the Pasteur Institute to which the question refers. The Government of India are, I believe, aware of the formation and proceedings of the committee, but I ascertained some weeks ago that they had not decided on their course of action. They hoped, however, to deal with the question during the present summer.

The Adulteration of Tea.

Sir FORTESCUE FLANNERY asked the Chancellor of the Exchequer if his attention had been called to a statement in the press that a quarter of the caper teas and half of the dust teas now imported should be confiscated under the Food and Drugs Act of 1875 by reason of their containing 20 per cent. of earthy matter and sand; whether he would explain the nature of the precautions taken by the Customs Department in London for the detection of such adulteration, and whether the number of samples analysed could be increased with advantage; and whether, having regard to the fact that the descriptions of tea above named were for the most part consumed by the humbler classes least able to protect themselves against adulteration, he would increase the staff of inspectors especially allocated to the duties of sampling and analysis of caper and dust teas.—The CHANCELLOR of the EXCHEQUER replied: My attention has been called to this matter. The Board of Customs have, in view of representations made to them by certain firms and of statements in the press, ordered a full inquiry to be made. It is not easy within the limits of an answer to a question to explain the precautions taken by the Board for the detection of the adulteration of tea; but I shall be happy if the hon. Member wishes it to supply him with particulars. The Board of Customs as at present advised do not consider that there is any need for altering the existing regulations, but if as a result of the investigation now in progress it should appear advisable to make such alterations or to increase the number of tea inspectors the necessary steps will be taken at once. Meantime a circular has been issued to the tea inspectors directing them to administer the existing regulations with special care.

An Ambulance for the Houses of Parliament.

Two questions were addressed to the First Commissioner of Works with regard to the desirability of providing an ambulance within the precincts of the Houses of Parliament for use in case of accident or sudden illness.—Mr. AKERS DOUGLAS, in reply, said that the matter appeared to him to be outside his jurisdiction and one for the consideration of the authorities of the Houses of Parliament.

Undersized Fish.

At this sitting of the House Mr. RITCHIE, President of the Board of Trade, introduced a Bill designed to prevent the destruction of undersized fish. It was framed, he said, on the report of the Select Committee on Sea Fisheries which sat in 1893 and was a somewhat simpler Bill than that which passed the House of Lords in 1897, and he hoped it would become law before the end of the session.

The Services of the Medical Officers in the Soudan Campaign.

During the discussion of the vote of thanks to the officers and men engaged in the recent Soudan campaign Dr. FARQUHARSON called attention to the fact that while other officers were mentioned by name in the resolution no medical officers were so distinguished. He said that he considered it his duty to the profession to which he belonged to call attention to this important omission. He thought that at least the name of Surgeon-General Taylor ought to have been mentioned whose services had called forth the admiration of his chief. The old distinction between combatants and non-combatants was now practically abolished. Medical officers accompanying an army were as much exposed to danger as the actual combatants, and in this war these officers conducted their work with skill, bravery, and success under a variety of difficult conditions, and he was greatly disappointed that the name of not one of them appeared in the *Gazette*.—Mr. BALFOUR, replying to Dr. Farquharson, said: The hon. Member has reproached us for not having included in the list of those who are thanked by name some member of that great and distinguished profession to which he belongs. I can assure him that this omission does not indicate on our part any disposition to underrate the eminent services rendered in war as well as in peace by the medical profession. But the hon. gentleman will feel with me that in these lists of names you must have some principle, you must draw a line in some place, and it is inevitable that beyond that line there will be names of men whose special services we should be glad to recognise. On that principle one name that I personally should like to see in the list is that of Lieutenant Girouard who did such distinguished service in organising the railway. But we have gone on the principle that you should not go below the rank of general of brigade, or some rank equivalent to that. We have included generals of divisions, all generals of brigades, naval officers commanding, and commanding officers of artillery, who practically do rank as generals of brigade, and there we have stopped. It would be impossible to add to the list without making it inconveniently and impossibly lengthy. We have proceeded as near as we can in letter and spirit according to precedent, and while I recognise the value of the services of many departmental officers, without whose assistance neither this nor any expedition could have been successfully conducted, I do not think it can be said we convey any slight upon a great profession or make an omission which we ought to have avoided by not specially including these officers.

FRIDAY, JUNE 9TH.

Health of the Troops in Natal.

Mr. BUCHANAN asked the Under Secretary of State for War whether the British troops had been sent back from the Mooi river to Ladysmith and what steps had been taken to improve the water-supply and sanitary condition of the accommodation at Ladysmith.—Mr. GEORGE WYNDHAM replied: These troops had been under canvas at an elevation of some 5000 feet during the hot weather; they were moved back into huts at Ladysmith on the approach of the cold weather, when enteric fever is not prevalent. £53,000 have been spent on improving the accommodation at Ladysmith and the general officer commanding had been instructed to postpone other services in order to apply the largest possible sum to sanitary requirements at that station.

MONDAY, JUNE 12TH.

The Mistakes of Dispensers.

Major RASCH asked the Vice-President of the Council whether any provision had been made by which accidents resulting from mistakes made by unqualified dispensers in doctors' surgeries were brought to the notice of the Privy Council, and if so whose duty it was to report such cases, and was the Government in a position to state the number of such cases which had occurred during the past two years.—Sir JOHN GORST: The answer to this is in the negative. The General Medical Council are reported to have appointed a committee to consider the representations addressed to them by the Privy Council on the subject.

WEDNESDAY, JUNE 14TH.

Midwives Bill.

This Bill was down for second reading to-day but was not reached.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

BARKLEY, JAS., L.R.C.P., L.R.C.S. Edin., has been appointed Senior House Surgeon to the Belfast Royal Victoria Hospital.

BROADLEY, J., M.B. Lond., has been appointed House Surgeon to the General Infirmary, Leeds.

BROUGHTON, H. T., M.R.C.S., has been re-appointed Honorary Surgeon to the Dewsbury and District Infirmary.

BUCK, A. H., F.R.C.S. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Sussex County Hospital, Brighton.

DANIEL, P. L., F.R.C.S., has been appointed Surgical Registrar to the Charing-cross Hospital, London.

FAULL, WM., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Resident Surgeon to the Dewsbury and District Infirmary, vice J. Prior, resigned.

FEATHERSTONE, G. W. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Painscastle Rural District Council.

FEGEN, C. M., M.R.C.S., L.R.C.P. Ed., D.P.H. Dubl., has been appointed Medical Officer of Health by the Croydon Rural District Council, also Physician to the Isolation Hospital, Beddington-corner, Mitcham.

FISON, E. T., M.D. Cantab., F.R.C.S. Edin., M.R.C.S., L.R.C.P., has been appointed Physician to the Salisbury Infirmary.

FOSTER, W. J., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Surgeon to the Royal Berkshire Hospital, Reading, vice J. A. P. Price.

GRUGGEN, W., L.R.C.P. Irel., L.F.P.S. Glasg., D.P.H. Camb., has been re-appointed Medical Officer by the South Mims Rural District Council.

HARBINSON, G. R., M.B., B.Ch. R.U.I., has been appointed Junior House Surgeon to the Belfast Royal Victoria Hospital.

HIGGINSON, CHARLES GASKELL, M.R.C.S., L.R.C.P., L.S.A., has been appointed an Honorary Medical Officer to the Pendleton Branch Dispensary, vice J. A. Albrecht, resigned.

INGLES, J. W., M.B., B.S. Edin., has been appointed Resident Medical Officer at the East Poorhouse by the Dundee Parish Council.

JOHNSTON, R. J., B.A., M.B., B.Ch. R.U.I., has been appointed Extern House Surgeon to the Belfast Royal Victoria Hospital.

LE QUESNE, C. P., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer, Southampton Dispensary, vice Ernest Blacker, resigned.

MAWSON, J. A., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer at the Ida Hospital, Leeds.

MONYPENY, H. J., M.B., B.Ch. R.U.I., has been appointed House Physician to the Belfast Royal Victoria Hospital.

MOORHOUSE, C. H., M.B. Vict., has been appointed a House Physician to the General Infirmary, Leeds.

POOLE, A. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has bae appointed Medical Officer of Health by the Tottenham District Council.

RACK J. PERCY, L.S.A. Lond., has been appointed House Surgeon to the Kidderminster Infirmary and Children's Hospital.

RIDDELL, R. G., M.B., Ch.B Edin., has been appointed Senior House Surgeon to the Borough Hospital, Birkenhead.

ROSS, RONALD, Major of the Indian Medical Service, M.R.C.S., has been appointed Lecturer on Tropical Medicine by the Council of University College, Liverpool.

SMITH, JOHN W., F.R.C.S. Eng., M.B. Edin., has been appointed Visiting Surgeon to the Chorlton Union Hospital at Withington, Manchester.

SPONG, A., M.B., Ch.B. Vict., has been appointed House Surgeon to the General Infirmary, Leeds.

SPROTT, WILLIAM J., M.D., M.Ch., Fel.B.G.S., has been appointed an Honorary Medical Officer to the Pendleton Branch Dispensary, vice C. C. Heywood, resigned.

TARR, WILLIAM, M.B., Ch.B., has been appointed Senior House Surgeon to the Johannesburg Hospital.

TOTHILL, F. C., M.B., C.M. Edin., has been appointed Medical Officer for the Staines Sanitary District of the Staines Union.

WATTS, W. F., M.R.C.S., has been re-appointed Honorary Surgeon to the Dewsbury and District Infirmary.

WIGHAM, W. H., M.B. Durh., M.R.C.S., has been re-appointed Medical Officer by the South Molton Town Council.

WILLIAMS, J. H., M.D. Edin., M.S., has been appointed Medical Officer of Health by the Connah's Quay Urban District Council.

WRAITH, E. A., M.R.C.P., L.R.C.P., has been appointed House Physician to the General Infirmary, Leeds.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House Surgeon. Board, lodging, and washing provided in the hospital. No salary.

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £50, with board and washing.—Also Resident Senior House Surgeon. Salary £80, with board and washing.

BOROUGH ASYLUM, Portsmouth.—Junior Assistant Medical Officer. Salary £100, with board, lodging, and washing.

BOROUGH HOSPITAL, Birkenhead.—Visiting House Surgeon. Salary £75 per annum, with board, lodging, and washing. No wine, spirits, or beer.

BOROUGH OF BURTON-UPON-TRENT.—Medical Officer of Health for the District of the Borough. Salary at the rate of £350 per annum, exclusive of authorised disbursements, payable quarterly.—Applications to the Town Clerk, Burton-upon-Trent.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.—Also Junior House Surgeon, unmarried. Salary £50 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—Assistant House Surgeon. Salary at the rate of £50 per annum. Rooms not provided.

COUNTY ASYLUM, Rainhill, near Liverpool.—Senior Assistant Medical Officer, unmarried. Salary commences at £225 per annum, with prospect of increase to £250, with furnished apartments, board, attendance, and washing.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Honorary Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer and Registrar. Salary £50, with board and washing.

FISHERTON ASYLUM.—Assistant Medical Officer. Salary £120 per annum to commence, with board, lodging, and washing. Apply to Dr. Finch, The Asylum, Salisbury.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION, Gloucester.—Physician.

GLASGOW CORPORATION.—Bacteriologist in connexion with the Health Department of the City. Salary at the rate of £350 per annum.—Applications to Clerk to the Corporation (Police Department) Glasgow.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Physician to Out-patients.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

HUDDERSFIELD INFIRMARY.—Assistant House Surgeon. Salary £60 per annum, with board, residence, and washing.

LANCASTER UNION.—Medical Officer for the Southern District of the Union. Salary £45 per annum, with certain extra fees, subject to statutory deductions. Apply to the Clerk to the Guardians, 5, Dalton-square, Lancaster.

LIVERPOOL DISPENSARIES, 34, Moorfields, Liverpool.—Assistant Surgeon, unmarried. Salary £100, with board and residence.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the House.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, 8, Hunter-street, Brunswick-square, W.C.—Lecturer on Biology and Lecturer on Public Health.

MANCHESTER CHILDREN'S HOSPITAL, Gartside-street, Manchester.—Medical Officer for the Dispensary. Salary £130 per annum.

MASON UNIVERSITY COLLEGE, Birmingham (with Queen's Faculty of Medicine).—Professorship of Physiology.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence (no stimulants provided).

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Surgeon and Assistant Physician to Out-patients.—Also Assistant Resident Medical Officer for six months. Honorarium at the rate of £60 per annum. Applications to the Secretary, Offices, 41, Fitzroy-square, W.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum, rising to £200.

PORTLAND TOWN DISPENSARY, Henry-street, London, N.W.—Resident Medical Officer. Salary £80.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND THE GENERAL HOSPITAL AND SEAMEN'S INFIRMARY.—Resident Medical Officer, unmarried. Salary £100 per annum, with furnished apartments, board, and attendance. £10 allowed for substitute during annual holiday. Applications to the Secretary, Ramsgate and St. Lawrence Royal Dispensary.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon. Salary £60 per annum, with board, lodging, and washing.—Also Assistant House Surgeon. Salary £30 per annum, with board, lodging, and washing. Both appointments for one year.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board, residence, washing, &c.

ROYAL UNITED HOSPITAL, Bath.—House Surgeon on July 1st, for three months. Salary at the rate of £60 per annum, with board, lodging, and washing.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL, London, E.C.—Assistant Demonstrator of Chemistry.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, London, W.—Ophthalmic Surgeon.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, London.—Honorary Physician and an Honorary Surgeon. Applications to the Honorary Secretary, 23, Gordon-street, Gordon-square, W.C.

SEAMEN'S HOSPITAL SOCIETY (*Dreadnought*), Greenwich, S.E.—House Surgeon. Salary £50 per annum, with board, residence, and washing. Also Surgeon to the Dispensary, 51, East India Dock road, E. Salary £65 per annum.

SHAFTESBURY HOUSE PRIVATE ASYLUM, Formby, near Liverpool.—Junior Medical Officer. Salary £50 per annum, with board, lodging, and washing.

STOCKTON AND THORNABY HOSPITAL, Stockton-on-Tees.—House Surgeon, non-resident. Salary £200 per annum.

UNIVERSITY OF GLASGOW.—Assistant Examiner. Salary £30 per annum.

UNIVERSITY COLLEGE, Bristol.—Professorship of Physiology.

WALSALL AND DISTRICT HOSPITAL, Leicester-street, Walsall.—Resident House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WEST-END HOSPITAL FOR NERVOUS DISEASES, Welbeck-street, London.—Medical Registrar for six months (non-resident). Honorarium, 25 guineas.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Assistant House Surgeon for six months. Honorarium at the rate of £50 per annum given, and board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BATTEN.—On June 13th, at Lordship-lane, Dulwich, S.E., the wife of George B. Batten, M.D., of a daughter.

CLARKE.—On June 10th, at Windsor House, Morley, the wife of W. Travers Clarke, M.R.C.S., L.R.C.P., of a daughter.

EVANS.—On June 7th, at Taviton-street, Gordon-square, the wife of Willmott Evans, B.S., F.R.C.S., of a son.

GOODSALL.—On June 3rd, at Devonshire-place, W., the wife of David Henry Goodsall, F.R.C.S., of a son.

HOFFMAN.—On June 12th, at Wylewm House, Knighton, Radnorshire, the wife of Arthur H. Hoffman, M.D., of a daughter.

KING.—On June 8th, at Nicholas-street, Chester, the wife of Henry W. King, M.D., of a son.

MURRELL.—On June 7th, the wife of G. F. Murrell, M.B., of Craven-road, Reading, of a daughter.

SMITH.—On June 5th, at Lynton House, Warrington, the wife of Reginald Smith, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

ATTFIELD—HERKOMER.—On June 14th, at the parish church, Bushey, Herts, by the Rev. G. Montague Hall, assisted by the Rev. James Herbert Harvey, M.A., cousin of the bridegroom, Donald Harvey Attfield, M.A., M.B., son of John Attfield, F.R.S., of Watford, Herts, to Elsa Anna Iole Herkomer, elder daughter of Hubert Herkomer, R.A., of Bushey, Herts.

BEST—MORE.—On June 9th, at Holy Trinity Church, Rothwell, by the Rev. W. S. Parker, vicar, assisted by the Rev. R. H. B. Crosthwaite, curate, Fredrick Henry de Graves Best, M.R.C.S. Eng., L.R.C.P. Lond., elder son of F. A. Best, Esq., Mount Gerrard, Torquay, to Elizabeth Beatrix (Bessie), only daughter of James More, Esq., M.D., Rothwell, Kettering, Northamptonshire.

HOPE—BOWRING.—On June 7th, at Christ Church, Linnet-lane, Liverpool, Edward W. Hope, M.D., medical officer of health of the city of Liverpool, to Charlotte Rennie, second daughter of the late John Bowring, Terra Nova, Sefton-park, Liverpool.

LANSDOWN—LATTEY.—On June 6th, at Southam, Warwickshire, Gilbert H. Lansdown, A.K.C., L.R.C.P., youngest son of the late George Lansdown of Wimbledon, to Edith Mary, eldest daughter of Walter Lattey, M.D., Southam.

MOORE—SWEPSTONE.—On June 8th, at St. John's Church, South Hackney, Edward J. Fleetwood Moore, L.R.C.P. Lond., M.R.C.S. Eng., son of Dr. Moore, of Victoria-park, to Lilian, third daughter of the late W. H. Swepstone, of Northumberland Houses, King Edward-road, Hackney.

NIX—COOKE.—On May 24th, at Oakington, by the Rev. H. G. Hooton, Rupert E. Nix, of Bury St. Edmunds, to his cousin, Edith M. Cooke, of Oakington, Cambridge.

ROUGHTON—GODFREY.—On June 12th, at St. Peter's, Bayswater, by the Rev. C. L. Acland and the Rev. R. Rumsey, uncles of the bride, the Rev. H. G. Rosedale, vicar, and the Rev. G. Terry, senior curate, Edmund Wilkinson Roughton, B.S., M.D., F.R.C.S., of 38, Queen Anne-street, Cavendish-square, W., son of the late Robert Roughton, R.N., to Ethel Moulton, younger daughter of Robert Seppings Godfrey, Registrar of the Supreme Court and of 6, Ladbroke-gardens, W.

ROUTCH—DONALDSON.—On June 10th, at St. Paul's, Newton Abbot, Frederick Routch, Physician and Surgeon, of Upper Grosvenor-road, Tunbridge Wells, to Gertrude (Tottie), Donaldson, only daughter of the late John Lockwood Donaldson, of Clifton, Bristol.

DEATHS.

FERGUSON.—Suddenly, at Cove Hotel, on June 7th, Major Ferguson, I.M.S., second son of the late John Ferguson, M.D., M.R.C.S., Cove, Kincardine.

PARR.—On June 10th, at Upper Phillimore-place, Kensington, George Charles Parr, M.D., aged 56.

TAIT.—On June 13th, at his residence, St. Petrock's, Llandudno West, Lawson Tait, aged 54.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE VALUE OF PROFESSIONAL UNION.

WE print below a letter from a member of the medical profession which is similar in tone to many communications which we have received from time to time. We do not give it publicity, however, only because it gives expression to opinions which would appear to be as widespread as they are natural and erroneous, but because it affords an excellent object-lesson in the helplessness of single-handed action. Our correspondent's letter which is headed "Unqualified Assistants" runs as follows:—

To the Editors of THE LANCET.

SIRS,—The unqualified class of medical gentlemen still flourish and from what I can learn there is but little to prevent them doing so. Some short time since I wrote to the General Medical Council acquainting the Registrar of a most glaring case in which a firm of surgeons employ an unqualified lad who has never attended a medical school and, so far as is known, not so much as passed a preliminary examination. His duties are not confined to dispensing (for which he has not the Apothecaries' Hall certificate), cleaning the surgery, and polishing the door-plate, but he visits private, club, and pauper patients, those in the workhouse, and also those in receipt of parish relief, attends midwifery cases, and prescribes for patients in the surgery. To the Registrar I gave the names with dates of several patients who had been visited and attended to by this unqualified lad.

I am informed that the General Medical Council do not intend interfering with any case unless a statutory declaration be made before a magistrate or a commissioner of oaths. What is the use of the General Medical Council passing a law in which it is stated that any medical man employing an unqualified assistant to visit, &c., is guilty of infamous conduct? This notice was sent to every medical man on the Register and yet this firm of surgeons take not the slightest notice of it. I do not intend undertaking any expenses myself, but anyone would have thought that the General Medical Council upon hearing of cases in which their resolutions are taken no notice of would have gone into the matter themselves and done their best to stop this scandal to the medical profession. Would it not be better before allowing Italians to practise in England to see that the profession is carried on decently at home?

I am, Sirs, yours faithfully,

June 6th, 1899. M.R.C.S. ENG.

"M.R.C.S. Eng." in his letter shows that he does not clearly comprehend what is the real scope of the work of the General Medical Council. The General Council of Medical Education and Registration of the United Kingdom, to give the body its correct name, was created for the good of the public to keep a Register of qualified medical practitioners so that the public may know who are and who are not properly equipped medical men. That no names of ignorant persons may find their way into the pages of this Register it becomes the duty of the General Medical Council to insist upon a proper educational standard being exacted from their students by all corporations and universities granting medical titles. That only the names of persons possessing that degree of moral repute and scrupulousness which all civilised peoples demand of their medical attendant may be included in the Register the General Medical Council is given power to expunge from the roll the names of persons proved unworthy to remain members of the medical profession. This last task of the General Medical Council is neither the most important nor the largest section of its work. But to satisfy "M.R.C.S. Eng." the Council would have neither time nor opportunity to do anything but attend to the purging of the Register. The General Medical Council is the tribunal before which the alleged offender can be brought, but it is not within the scope of its duties any more than it is within the scope of the duties of a judge of the High Court to go round the country haling prisoners before itself. Judges, again, do not investigate crimes in response to information received from private individuals and the same precaution is taken by the General Medical Council. Proper machinery exists for the arraignment of legal offenders and only when a prisoner is brought into court in accordance with legal formality can he be tried and punished. Here the parallel between the High Court and the General Medical Council ceases, for the Council is not assisted by policemen and detectives, to say nothing of all the other machinery that exists for the prevention and punishment of crime. There is no provision in the Act for the expenditure of funds in such a way and this ought to have occurred to "M.R.C.S. Eng." before he expressed his belief that it was the duty of the Council "to go into the matter themselves."

The lesson to be learned from the check which "M.R.C.S. Eng." has received in his very proper attempt to bring offending medical practitioners to the notice of the General Medical Council is the absolute necessity for union among members of the medical profession. If "M.R.C.S. Eng." is a member of the Medical Defence Union or the London and Counties Medical Protection Association, or any body with similar objects, he can lay the matter before them, produce the detailed evidence of which he is the possessor, and expect the rest to be done for him. If he is backed by the medical men of the neighbourhood his action as common informer would lose invidiousness and he will be able to bring the case to the General Medical Council with the certainty of its receiving proper attention and with no fear lest anyone should cast upon him the imputation of having been actuated by professional jealousy. We sympathise with him in his view that the General Medical Council is placed in an unfortunate position when it issues a strict edict which members of the medical profession can disregard with impunity. But it is wrong to attribute supineness to the General Medical Council because it does not do its own detective work. The regulations of the Council concerning the employment of unqualified assistants were issued in behalf of the medical profession at large, and, hardly as they pressed upon some members of the medical profession and on the whole of a large class of men with whom the medical profession had been for many years closely associated, still they worked for the good of the profession. It is therefore the duty of the profession by united action to assist the Council to enforce their regulations.

"THE MEMORIALS OF THE CORPORATE AND MEDICAL REFORM ASSOCIATION, LIMITED."

THE Corporate and Medical Reform Association, Limited, desires to acknowledge with thanks the following further donations to its Special Voluntary Fund for the purposes of the memorials against certification of unqualified practitioners (midwives and opticians). The resolutions of the General Medical Council on June 9th, in reply to the memorials, concede the principle affirmed by the memoralists, but until applied by means of successful test cases are valueless for practical purposes, and the maintenance of these important principles by every constitutional means calls for further combined and energetic action.

	£	s.	d.		£	s.	d.
Mr. G. A. Critchett (second donation) ...	1	1	0	Mr. J. B. Lawford	1	1	0
Mr. Walter Edmunds...	1	1	0	Mr. F. M. Mackenzie ...	1	1	0
Mr. H. E. Juler (second donation)	1	1	0	Dr. Joseph Nelson	1	1	0
				Mr. H. Secker Walker ...	1	1	0

Donations may be sent per crossed cheque or postal order to the honorary secretaries, Dr. Tom R. Taylor and Mr. R. B. Anderson, at the registered offices, 2, Southampton-street, Strand, W.C., or to Mr. R. B. Anderson, acting pro-treasurer, 32, Montague-place, London, W.C.

TOUTING.

A MEDICAL man writes under the *nom-de-plume* of *Izal*:—

"1. The medical practitioners around —— in the carrying out of their private clubs have recourse to employing men generally called 'collectors' whose duty is not only to secure members (a system of touting) but likewise to collect the individual subscriptions quarterly. 2. Would it be considered a justifiable act to provide any man or woman who is in no way qualified or competent with a few drugs and other necessaries that he or she might treat minor complaints and injuries, thereby saving a practitioner the trouble of attending to such cases personally? I greatly wish to ascertain whether these two methods would be thought customary and consistent with the high principles which govern all well-meaning practitioners."

To these questions we have to reply:—1. It has always been considered discreditable to employ touts. Now that the General Medical Council has expressly stated that it "regards it as unprofessional" for a medical man "to hold the appointment of medical officer to any associations which systematically practise canvassing" it behoves the practitioner to be very careful how he conducts his private club. 2. Unqualified assistants may not practise save as dressers and assistants.

"WHAT IS YOUR FEE?"

To the Editors of THE LANCET.

SIRS,—At Marylebone County Court on June 1st in a case in which I was plaintiff I was asked, "What is your fee?" I might truthfully have answered that I have accepted 12 guineas as a fee where the patient's friends were not in a position to pay 20 guineas and that fee has been paid with expressions of gratitude in a case infinitely less troublesome than the one under consideration, but though the friends were not in a position to give thousands of pounds for a public-house they could apppeciate the value of professional services. In the present case I had seen and attended to the patient 51 times and I made an inclusive charge of five guineas, which, as the judge remarked, was very moderate. The defence was that on a previous occasion I had attended defendant's son for 1*s.* for each attendance. It was suggested that my fee was 1*s.* I stated that my usual fee in such a case would be from 2*s.* 6*d.* to 5*s.*, but it was true that in the case of poor people I accepted a cash payment of 1*s.* when the patients were too poor to pay more. This arrangement is of course for the poor only and a cash payment is the essence of the contract. The defendant could not plead ignorance of this fact for he stated in court that when his boy went without a shilling he was sent back to get it. The facts are as follows: A boy came into my waiting-room with a shabby-looking companion, a cut in the forehead, and a shilling. My son dressed the wound antiseptically, put in two sutures, and accepted the shilling telling me afterwards that it ought to have been more, but that

he supposed, from appearances that it was all the patient could afford. A few days afterwards the boy appeared again and said he had "come to have the stitches out." Being asked if he had any money he said, "Oh no, I paid *the shilling* the other night." Being told that he would not be looked at without a further payment he shortly reappeared with the required coin. The sutures were removed a few days afterwards when a third shilling was paid. The wound had healed by first intention and no further treatment was necessary. Some two months afterwards a well-dressed, prosperous-looking man came in bringing with him a little girl with a wounded forehead. My son wished to put in a suture but the father objected, so it was dressed otherwise. The next day the father came again with the child. I saw him, asked his name and address, and that was the first time that I knew of the existence of the licensed victualler and public-house proprietor who became defendant in this case. Though near my house I did not even know the name of the hotel till he told me. Seeing before me a man of means I said nothing about payment unless I may have suggested that it had better stand over until the case was concluded, his appearance and address being sufficient guarantee that the money would be forthcoming when the case was completed. I supplied bandages, lint, protective tissue, &c., regardless of cost, and brought the case to a successful issue, the scar, which from want of a suture might have been a sad disfigurement on the forehead of a pretty girl, being scarcely perceptible. Now, the attendance involved 51 dressings, but wishing to avoid anything that might be considered overcharge I made an inclusive charge of five guineas, offering a reduction even on that if desired, provided it were settled by a certain date. No notice was taken of this and eventually I had to put the case in the county court.

The judge ruled that as I had attended the boy for 1s. each attendance I could not claim more for the girl, and obliged me to accept about half my claim. Is it justice?

I am, Sirs, yours faithfully,

June 3rd, 1899. M.R.C.S. ENG., &c.

VERMINOUS CLOTHING.

To the Editors of THE LANCET.

SIRS,—At a small general hospital recently opened in our town we have had considerable difficulty in dealing with patients' verminous clothing before storing them. We have no steam apparatus about the house and it is not worth our while going to the expense (which would be considerable) of a special steam press for the sake of dealing with one or two suits in the month. Much of the clothing would not survive boiling or even soaking in germicidal solutions. I have thought of constructing a small chamber in which such clothes could be suspended in an atmosphere periodically saturated with some volatile "insecticide," such as formalin, &c. I shall be much indebted to any of your readers who can tell us how similar difficulties have been overcome elsewhere.

I am, Sirs, yours faithfully,

June 14th, 1899. PED. CORP.

MEDICAL PRACTICE IN MASHONALAND.

IN answer to "Artegall's" query in THE LANCET of April 8th "H. S.," writing from the British South Africa Company's Hospital, Umtali, says: "As to the prospects of a medical man settling in Mashonaland I am afraid I cannot give an encouraging reply. At present the population is too thin and scattered, the population of the whole country just now not exceeding that of a moderate-sized Yorkshire village. There are five townships—Salisbury, Umtali, Victoria, Melsitte, and Enkeldoorn. Salisbury and Umtali have nine medical men; each of the other three are looked after by the Government district surgeons, certain other districts, such as Hartley Lomajundis and the Abercorn, where British South African police are stationed, are attended to by police surgeons. I imagine it will be some time before the population of either of these districts would warrant the presence of another medical man. If 'Artegall' really wishes to settle in Mashonaland I should advise him to apply at the British South African Company's office in Cape Town until he gets an appointment; I do not think vacancies are ever filled in England. The country is excessively healthy and except during the summer-autumn period after the rains, when malaria is somewhat prevalent, there is very little work to do."

THE "MOVIMENTO DEMOGRAFICO" IN ITALY.

THE latest official return under this head has features of special interest. During 1897 there were born in Italy 1,101,843 "additions to the population" and there died of that number 695,602. Of the births 566,654 were males and 535,194 females; of the deaths 352,038 were males and 343,564 females. From 1872 onwards the year in which the death-rate was highest was 1880, with the portentous total of 869,992 deaths. The greatest number of births was in 1887—amounting to 1,152,906. The greatest percentage of births was in the Abruzzi (40·24 per 1000 inhabitants); the smallest in Piedmont (29·58 per 1000). Latium has 35·79 and Lombardy 35·31. The number of illegitimate births in 1897 was 70,199, sub-divided into 35,763 males and 34,436 females. Of the total of illegitimate children 41,366 were recognised by one or both of their parents; the other 28,833 were not, but relegated in most cases to the tender mercies of the Brefotrofio (foundling hospital) with its scandalously high death-rate—sometimes cent. per cent. The highest total of illegitimate births comes from Latium (which figures almost in the first line), from the Romagna, and from Sicily. In 1897 there were in all Italy 13,124 double births and 174 triplets. In these latter Lombardy "beats the record" with its 28, then comes Venice with 27. In the Roman province for all the year there were seven cases of triplets. Finally, Liguria produced one case, unique in the Italian kingdom, of a "parto quadruplo" (quadruple birth)—a mother having given to the world four females at once.

A QUESTION OF SEWAGE DISPOSAL.

To the Editors of THE LANCET.

SIRS,—Would any of your readers be so kind as to advise me as to the best *brochure* on sewage disposal for a limited population where water carriage is not available? The problem with which I have to deal is that of a colony of some 1500 or 2000 workmen to be housed round some works, the whole occupying some hundred acres of level ground. The soil consists of a foot or so of humus and beneath this a deep layer of dense argillaceous clay. The first water-bearing level is about 30 feet from the surface, but the water-supply would probably be obtained from a deep boring drawing the water from a second water layer some 300 feet deep. The workmen are chiefly Italians and the system to be adopted must be simple. In another case under very similar circumstances, but in which the workmen were housed in wooden huts that were frequently moved, we adopted a system of shallow pits, one set for rubbish and another set over which closets were erected, and these pits were frequently drenched with a load of lime and finally refilled with soil, a new pit being excavated a few yards distant. In the present case the workmen will be housed in permanent dwellings and some pail system seems inevitable.

I am, Sirs, yours faithfully,

M.D.

ICE-CREAMS.

To the Editors of THE LANCET.

SIRS,—The season for the street and seashore "ice-cream" vendor is now here again with us and again are to be seen groups of children investing their coppers and joyously swallowing anything that is handed to them. Will you, Sirs, once again say a word for the small ones and urge that everything possible may be done by the authorities to see that the interests of the children are protected and that what is sold to them may be at all events free from any danger to their health? The general appearance of one vendor whom I saw serving a group of hearty little boys suggested awful possibilities to my mind and haunts me, and compels me to write this to you.

I am, Sirs, yours faithfully,

NEMO (Surgeon).

THE MICROPHONOGRAPH.

CAN any of our readers inform a correspondent where he can obtain full particulars concerning M. Dussaud's microphonograph?

E. B.—The treatment is not one concerning which our readers are likely to have anything complimentary to say. It is not founded upon medical principles nor are the homes—which we understand to be as a rule expensive out of all proportion to the attention provided—necessarily under medical charge. The only book we have seen upon this subject was written by a layman.

Incisor.—The first circular, which does not emanate from a medical man, should only have been sent to patients of the deceased, especially in view of the offer to call upon such patients. We do not see why exception should be taken to the second circular.

Inquirer will find the information which he seeks in the introductory chapters to Churchill's Medical Directory. If he requires to know anything more in detail with respect to any particular service or appointment we will assist him.

X. Y. Z.—The inaugural meeting of the Cancer Society was held on Friday, June 9th, Sir Charles Cameron, M.P., presiding. We do not know where the offices are.

Inquirer (J. H.).—The expression is used as our correspondent surmises.

T. H.—The general subject of hair dyes is not strictly a medical one.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 15th, 1899.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
June 9	30·39	E.	...	110	68	50	48	53	Cloudy
,, 10	30·31	E.	...	113	71	52	50	55	Cloudy
,, 11	30·24	E.	...	114	73	52	51	55	Cloudy
,, 12	30·15	S.W.	...	115	78	53	56	59	Hazy
,, 13	30·09	N.E.	...	106	74	54	53	57	Cloudy
,, 14	29·95	N.E.	...	94	69	47	48	53	Cloudy
,, 15	30·12	N.E.	...	110	71	47	51	57	Fine

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (21st).—St. Bartholomew's (1.30 P.M.), University College, (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (22nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2. 30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (24th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (21st).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. **Mr. C. Beck**: Exhibition of Wild Flowers with Microscopes. 8 P.M. **Mr. J. Y. Johnson**: Notes on some Sponges belonging to the Clionidæ obtained at Madeira.

ROYAL METEOROLOGICAL SOCIETY (70, Victoria-street, Westminster, S.W.).—4.30 P.M. Ordinary Meeting. Papers:—**Mr. R. H. Scott**: Heavy Falls of Rain recorded at the Observatories connected with the Meteorological Office, 1871–1898.—**Mr. R. C. Mossman**: Average Height of the Barometer in London.—**Mr. J. Baxendell**: A new Self-recording Anemoscope.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (19th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. **Mr. W. Wingrave**: The Clinical Anatomy and Physiology of the Mouth and Pharynx.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. **Mr. C. B. Keetley**: Injuries and Deformities of the Upper Extremity.

TUESDAY (20th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. **Mr. Ballance**: Surgery of the Nervous System.

WEDNESDAY (21st).—HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. **Dr. Schorstein**: Asthma.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—4.30 P.M. **Dr. M. Dockrell**: Disorders of Sweat Glands. (Post-graduate Course.)

THURSDAY (22nd).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. **Dr. D. Grant**: Diagnosis and Treatment of Dangerous Sequelæ of Otitis.

CHARING-CROSS HOSPITAL.—4 P.M. **Dr. Mott**: Demonstration of Medical Cases. (Post-Graduate Class.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Voelcker: Demonstration of Selected Cases.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. **Dr. J. B. Ball**: The Symptoms of Throat and Nose Affections

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During the week marked copies of the following newspapers have been received: *East Anglian Daily Times, Midland Evening News, Wigan Examiner, Dundee Courier, Bradford Observer, Sheffield Daily Telegraph, Councillor and Guardian (London), Hereford Times, Leicester Daily Post, Glasgow Herald, Scotsman, Sussex Daily News, Torquay Directory, Cornish Telegraph, Advocate of India (Bombay), Times of India, Pioneer Mail, Western Morning News, Blackburn Daily Telegraph, Birmingham Daily Post, Brighton Gazette, Kentish Mercury, Liverpool Daily Post, Cannock Chase Courier, Sanitary Record, Citizen, Builder, Architect, Bristol Mercury, Yorkshire Post, Madras Standard, Health, Science Siftings, Leeds Mercury, Herts Advertiser and St. Albans Times, Mining Journal, City Press, Reading Mercury, Hertfordshire Mercury, Cheltenham Examiner, African Times, Isle of Man Examiner, Weekly Free Press and Aberdeen Herald, Local Government Journal, Surrey Advertiser, Local Government Chronicle, Elgin Courant, Chudleigh Express, Sidmouth Observer, Daily Messenger, Bicester Herald, Easingwold Advertiser, Public Opinion, Naval and Military Record, Flintshire Observer, Toronto Daily Mail, Wakefield Herald, Birkenhead News, Melbourne Argus, &c., &c.*

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It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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X.—X., Leeds.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.